ADULT LITERACY
"LESSONS LEARNED"
PROJECT

Technical Report

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prepared by:

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1. INTRODUCTION

That significant numbers of adults in Canada and other industrialized countries have low literacy skill levels is well documented. Considerable resources have been expended in understanding the scope and nature of the problems experienced individually and collectively by adults whose literacy skill levels are not commensurate with the literacy demands of contemporary society. There are clear links between literacy and (1) active, positive citizenship and personal empowerment; (2) work and participation in the economy; and (3) education/training and lifelong learning. These three areas of concern are policy contexts in which literacy interventions have been undertaken – interventions that have taken the form of policies, research, programs and/or practices addressing the problems created for individuals and society by the mismatch between literacy skill levels and literacy demands.

This study focuses primarily on interventions that have been formally evaluated. The purpose of this report is to identify the lessons learned, through evaluation studies and research reports, from these interventions. For this report, an extensive literature review was undertaken to locate and utilize appropriate evaluation studies with a view to including as many different types of interventions as possible; i.e., the focus has been more on breadth than on in-depth study of a particular type of intervention. Therefore, this report contains many, many specific lessons and many general lessons learned from evaluations of policies, programs and practices in the areas of literacy for citizenship, work and lifelong learning.

The context in which this study takes place is the decade of 1988 to 1998 – from just before International Literacy Year to the present. Most of the literacy interventions in Canada and in other industrialized countries are based in the studies and awareness that were generated by ILY 1990. Examples of the range of interventions in all three literacy contexts are set out for illustration purposes and for lessons learned within various policy contexts. However, this report seeks to answer the question: what has been learned from the various interventions over the past ten years, interventions that were intended to understand and reduce the problems, for individuals and for society, related to adult literacy? The answers have potential utility in the creation and evaluation of present and future policies, programs and practices.

Gathering and analyzing evaluation and research reports has been the beginning of a process. This technical report forms the basis of a synthesis of the lessons learned into a brief "lessons learned" report and other information materials available from Evaluation and Data Development of Human Resources Development Canada.

2. PROJECT OVERVIEW

2.1. Study Objectives

This study, commissioned by Human Resources Development Canada (HRDC), is a study of "lessons learned" from policies, programs and practices aimed at a promoting adult literacy. The objectives of this study are to examine the context of the issue – the connections between literacy and such issues as employment, justice and criminality, health on a Canadian and international basis; to demonstrate the variety of literacy interventions; and to determine the lessons learned from the evaluation of various interventions – what works, what doesn't, and why.

2.2. Defining "Adult Literacy"

The terms "literacy" and "adult literacy" have been defined in a myriad of ways. For purposes of this study, the definition used is that employed by the International Adult Literacy Survey (IALS) by Statistics Canada, Human Resources Development Canada (HRDC) and the Organization for Economic Cooperation and Development (OECD).

> *Literacy, as a mode of adult behaviour, is using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.*[1]

2.3. Limitations Of The Study

This study is limited in the following seven ways:

- by limiting the scope of the concept of "adult literacy;"
- by narrowing the socio-economic scope of adult literacy policies and programs;
- by determining a specific timeframe;
- by intention to be representative and illustrative rather than all inclusive;
- by data source;
- by availability of reports; and
- pragmatically, by funding parameters.

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[1] *Literacy, Economy and Society*; p. 14. (OECD, 1995)

2.3.1. Limiting the concept

The teaching and the use of literacy skills are related to a huge number of other issues, e.g.,

- ESL/FSL (English or French as a Second Language),
- "mother tongue" literacy,
- the teaching of reading in general (e.g., Whole Language vs. phonics),
- the teaching of reading in schools to children and school readiness,
- various literacies such as scientific, political, historical or cultural literacy.

However, this study focuses solely on the policies and programs related to adult literacy in the broader sense: interventions aimed at understanding and addressing problems, for individuals and for society, related to adult literacy.

It is worth noting, also, that the term "illiteracy" is used in early studies and documents. However, it has been replaced with such terms as "low-level literacy" because it was determined to be a misleading and pejorative term. When it appears in this paper, it is being cited as it was used at the time of the citation.

2.3.2. Limiting the socio-economic scope

The focus of this study is "lessons learned" from the evaluation and studies of adult literacy policies and programs. While there are examples of "lessons learned" under varied socio-economic conditions, e.g., in developing and newly industrialized economies, this study focuses on some of those conditions that are similar to Canada's, i.e., a relatively wealthy, industrialized economy in the throes of structural readjustment to the knowledge-intensive economy. Specifically, this means the United States (U.S.), Australia, New Zealand and the European community, typically represented by such research and policy making bodies as the Organization for Economic Cooperation and Development (OECD). Additional information about literacy in industrialized countries is often provided by the United Nations Education, Scientific and Cultural Organization (UNESCO), the International Labour Organization (ILO), and Asia-Pacific Economic Cooperation (APEC).

Because literacy requirements and literacy rates differ greatly from country to country and region to region, literacy policy initiatives and interventions have been undertaken and studied in developed and developing countries by the United Nations (Nascimento, 1990), and in

industrialized and non-industrialized countries by the Organization for Economic Cooperation and Development (Brand, 1987). Policies required by countries in either category differ, based in part on the extent and nature of the problem, the political and socio-economic framework, public awareness, and the resources available to direct at the solution (Hamadache and Martin, 1986). This study is limited, therefore, to studies and interventions in selected industrialized economies including Canada.

2.3.3. Limiting the timeframe

While the definitions and policies related to adult literacy have evolved over a considerable period of time, current programs and policies largely reflect the plans and priorities established around International Literacy Year, 1990. This study is limited to programs and policies over the approximate 10-year period, 1988 to 1998. While the context section of the study concerns itself with "around the time of ILY" and "now – approximately 10 years later," the interventions section sets out a sample of policies, programs and practices that occurred over the intervening years.

2.3.4. Limiting the inclusiveness of the study

While this study is not intended to be inclusive of each and every policy or program, it is intended to be inclusive of the various types of interventions -- national policies, community-based literacy programs, workplace peer tutoring programs, computer-assisted literacy instruction, and classes in prisons -- that relate to the context of the intervention. Clearly, there are far too many interventions to capture them all in a brief study such as this.

2.3.5. Limiting the sources of data

This study is largely based on a review of existing documents available. It is a synthesis of studies linking literacy to other social issues as well as an analysis of evaluations of various interventions. The term "evaluation" is used to mean studies that have formally resulted in the judgement of a policy, program or practice; however, evaluations can take a wide variety of formats: e.g., cost-benefit analysis, impact analysis, success by any number of standards. It is important to note that the evaluation reports included are not consistent in approach or methodology; however, all are considered to be credible sources of information.

The quality of existing evaluations and studies used has been determined to be sound, using the following criteria for determining the quality of the evaluation research:

1. the reliability of the research
   - objectivity -- external vs. internal assessment
   - the qualifications of the researchers *(training, experience and reputation)*
2. the validity of the research
   - completeness of the report (the research methodology and data used)
   - quality of the conclusions (its links to the data)
   - consideration of attribution of cause and effect
3. the utility of the research
   - currency
   - compatibility of definitions used with those in this study

Each evaluation report used in this study has been subjected to a judgement based on these criteria.

2.3.6. Limitations of availability of data

In some cases, evaluation reports simply could not be acquired in the timeframe of the study or were unavailable for various reasons.

2.3.7. Limitations of project parameters

As with all research projects, boundaries are drawn around the length and breadth of the study by the resources allocated. While the object of this study – adult literacy interventions – is extremely broad and deep, time has not allowed for an all inclusive study. This report should be construed as a broad picture of sample interventions and lessons learned, rather than an intensive study of all policies, programs and practices. Efforts have been made to secure information about interventions in the industrialized countries, and in both official languages; however, no claim is made to inclusivity.

2.4. Context Of The Study

An examination of adult literacy policies and programs takes place within the public policy context that has framed the policy problem and resulting interventions. For purposes of this study, the policy context and resulting data sources are framed in the following way.

Policy Context	Policy Problem	Program Contexts, Types and Objectives	Sample Interventions
Citizenship in a democracy, characterized by lawfulness, personal empowerment, participation in politics (voting) and decision-making, and a value on human rights and social cohesion	The real or perceived gap between literacy abilities of some and the skills required to produce, acquire or use literacy-based information to participate positively in the life of the community contributes to: 1. a moral or ethical problem for society at large and 2. enfranchisement or empowerment problems for some individuals 3. social problems such as ill-health, poverty and crime	♦ for law-breakers, skill instruction programs for offenders and ex-offenders to teach literacy skills and empowerment ♦ where literacy demands are great or unwarranted, plain language initiatives to reduce barriers to information ♦ where resource choices must be made, e.g., time, money, advocacy initiatives to promote the value of reading ♦ where resource choices or circumstance have resulted in inequities, advocacy and instructional initiatives for special populations	♦ remedial programs offered by volunteer and/or peer tutors, qualified instructors, e.g., by Laubach Literacy or Frontier College ♦ research-based activities to reduce literacy requirements where possible, e.g., in legal reading materials by the John Howard Society ♦ public relations programs to present the positive values of literacy, e.g., the ABC Canada Foundation ♦ teaching and advocacy programs directed specifically at the designated equity groups (women, visible minorities, First Nations, and persons with disabilities) ♦ macro policies to coordinate and support literacy-related initiatives, e.g., National Literacy Secretariat

Policy Context	Policy Problem	Program Contexts, Types and Objectives	Sample Interventions
Economic and industrial development, measured by employment levels, industrial output and productivity, employer and employee satisfaction, human resources development practices and policies	The real or perceived gap between literacy abilities of some and the skills required by industries – existing and emerging – translates into: 1. a productivity and financial problem for employers 2. career development problems for individuals (unemployment, perhaps poverty)	♦ where workers require skill upgrading to meet industry demands, instructional programs are provided in some workplaces ♦ where workers require skill upgrading for work or personal demands, instructional and support programs are offered in some communities ♦ where resource choices must be made, advocacy programs to promote humanistic and/or economic values	♦ workplace literacy *programs* developed by unions and/or employers, with teachers, tutors, or technology, in specific work sites or industry-wide, e.g., SkillPlan in BC ♦ workforce literacy programs developed by the formal education system or community-based agencies to provide learning and support programs to individuals, e.g., community colleges ♦ public relations campaigns to reinforce the need to consider the human costs of unemployment and underemployment, e.g., ABC Canada media campaign ♦ macro policies to reinforce the need for workforce change and skill upgrading for competitiveness in the global economy, e.g., research by Conference Board of Canada, sponsored by the National Literacy Secretariat

Policy Context	Policy Problem	Program Contexts, Types and Objectives	Sample Interventions
The actual teaching of literacy (e.g., the accountability of publicly-funded systems for teaching and learning where adult literacy is formally taught) and literacy as a basis for lifelong learning	♦ The gap between the skills to be taught and skill levels acquired by some causes an accountability problem for the learning systems ♦ The gap between the skill levels of some and the skills required for advanced education and training causes an access problem for some ♦ In a lifelong learning culture, literacy is a foundational skill that some lack	♦ where the outcomes of learning systems have not contributed positively to literacy rates, new accountability measures and instructional practices ♦ where individuals require skill upgrading for entrance to skill training or post-secondary education, remedial programs ♦ where individuals have special learning requirements (e.g., dyslexia), research and special teaching programs	♦ research to determine the nature of the problem, e.g., the International Adult Literacy Study of Statistics Canada, HRDC, and the OECD ♦ adult literacy and/or basic education courses offered by some school boards and colleges with qualified instructors ♦ volunteer tutoring programs offered by community agencies such as libraries and churches, and by labour organizations ♦ programs involving instructors and/or technology, e.g., Pathfinder ♦ unique programs for individuals with special needs

2.5. Role Of The Researcher And Consultative Group

The role of the researcher was to locate, gather, sort and analyze data sources, using every search means possible to gather a vast number of documents that may or may not have real relevance to the study. In this task, the researcher was assisted by a consultative group. The researcher recruited a premier cast of informed individuals representing the spectrum of those involved in adult literacy interventions in Canada: provincial ministries, local delivery agencies, literacy coalitions, workplace literacy groups, researchers, both providers and learners, both anglophone and francophone. The individuals volunteered their time and wisdom to (1) help frame the study, (2) locate sources of useful literature, (3) review project reports, and (4) promote the outcomes of the study.

3. PROJECT ACTIVITY

3.1. Research Questions

The study is guided by the following research questions.

1. What are the characteristics of the policy environment – i.e., the context and the policy problems -- in which the issue of adult literacy is situated in industrialized countries such as Canada:
   - 1.1. around the time of ILY (late 1980's)?
   - 1.2. at present, in 1998?
   - 1.3. what policies and programs have been put into place to address the policy problems?
2. Of the policies and programs that have been instituted in that timeframe:
   - 2.1. Which of those have been formally evaluated?
   - 2.2. Can the evaluation reports be acquired in a very short time?
   - 2.3. Which of the evaluation reports are of acceptable quality?
3. From the acceptable evaluation reports of adult literacy policies and programs:
   - 3.1. what are the indicators of success
     - ♦ relative to the policy problems?
     - ♦ from the various stakeholder perspectives?
   - 3.2. what lessons can be learned from policies and programs that have been judged to be successful? What significant factors contribute to success?
   - 3.3. what lessons can be learned form policies and programs that have been judged to be unsuccessful? What are the significant factors contributing to "failure"?

3.2. Information Gathering

The data gathering for this study comes largely from published reports, i.e., documents and evaluation reports that are generally available, either in print from, e.g., the NLS, or via the Internet; and/or available upon request from, e.g., NLS-funded projects in Canada, UNESCO, OECD, American Federation of Labour - (AFL-CIO), provincial education and training ministries, various U.S. and Commonwealth adult literacy offices and agencies as a follow-up to

planning documents and stated priorities prior to International Literacy Year 1990, and reported policy initiatives, planned programs and existing interventions. Documents have been sought in both official languages. Descriptors for the search have combined the concepts of:

- adult literacy (adult illiteracy, functional literacy)
- education and training policies (adult education, literacy training)
- adult literacy programs and practices (e.g., volunteer tutoring programs, prison literacy programs, labour force development)
- public policy analysis (adult literacy, labour market information, social issues such as poverty, economic issues – federal and provincial/territorial)
- program evaluation (accountability, quality indicators, success, effectiveness and efficiency)
- literacy for special populations (e.g., gender, age, disability, family)

The documents and reports gathered – i.e., the data sources -- fall into three broad categories

A. that which sets out the adult literacy problem, or aspects of it
   - general statements of the situation approximately 10 years ago
   - general statements of the situation today
   - specific statements of the situation approximately 10 years ago and today

B. that which sets out recommendations and planned initiatives / interventions
   - general recommendations for policies and activities
   - specific recommendations and/or planned activities
     - interventions that were recommended only, with no apparent implementation
     - interventions that were undertaken, and whatever is known about them
     - if they were not evaluated, potential sources of more information

C. that in which interventions have been completed and evaluated
   - lessons learned from specific evaluations
     - the context
     - how they defined success – what they were hoping to achieve
     - what they succeeded in doing
     - why or how they were successful
     - the nature of the evaluation / study
   - overall change in the last approximate 10 years

An extensive literature search was undertaken, and this systematic approach to sorting the policies, programs and practices was used. One search objective was to ensure entries for all the data analysis categories.

3.3. Information Analysis Framework

The documents and resulting data are sorted and presented according to the following framework: policy context and typical policy or program interventions.

1. Literacy and citizenship in a democracy
    - remedial programs offered by volunteer and/or peer tutors, qualified instructors (e.g., Laubach Literacy and Frontier College)
    - research-based activities to reduce literacy requirements where possible (e.g., in legal reading materials by the John Howard Society)
    - public relations programs to present the positive values of literacy (e.g., through family literacy promotions of the ABC Foundation)
    - teaching and advocacy programs directed specifically at the designated equity groups -- women, visible minorities, First Nations, and persons with disabilities [e.g., Canadian Congress of Learning Opportunities for Women (CCLOW)]
    - macro policies to coordinate and support literacy-related initiatives [e.g., the National Literacy Secretariat (NLS) of Human Resources Development Canada (HRDC)]
2. Literacy and economic / industrial development
    - workplace literacy programs developed by unions and/or employers, with teachers, tutors, and/or technology, in specific work sites or industry-wide
    - workforce literacy programs developed by the formal education system or community-based agencies to provide learning and support programs to individuals (e.g., community colleges)
    - public relations campaigns to reinforce the need to consider the human costs of unemployment and underemployment (e.g., ABC CANADA media campaign)
    - macro policies to reinforce the need for workforce change and skill upgrading for competitiveness in the global economy (e.g., research by Conference Board of Canada)

3. Literacy and lifelong learning

   - research to determine the nature of the problem [e.g., the International Adult Literacy Survey (IALS) of Statistics Canada, Human Resources Development Canada (HRDC), and the Organization for Economic Development and Cooperation (OECD)]
   - adult literacy and/or basic education courses offered by some school boards and colleges with qualified instructors
   - volunteer tutoring programs offered by community agencies such as libraries and churches
   - applications of learning technologies (e.g., Pathfinder)
   - unique programs for individuals with special needs

4. That which doesn't seem to fit into the 3 categories above.

The resulting organization of information looks like this, although there may be considerable overlap, with some documents filling many categories.

	A. Statements of the problem	B. Recommended and planned interventions	C. Complete and evaluated interventions
1. Citizenship context			
2. Workforce context			
3. Teaching/learning context			
4. Other			

This framework is based, in part, on the grid created by Quigley[2] which uses the following two parameters: philosophy/goals and program focus. The five different philosophies or goals are:

1. Vocational: this is workplace literacy and the goal is employment, either directly or indirectly.
2. Academic: the goal is on developing skills of reading and/or writing. The content of the program material is not a major concern; it is to allow for the development of the various skills.
3. Liberal: the goal is to develop specific knowledge. This differs from academic in that the focus is on knowing the information rather than developing reading and/or writing skills to access the information.

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[2] *Rethinking Literacy Education.* (Quigley, 1997).

4. Humanistic: concerned about attitudes, beliefs, motivations, self-images, self-esteem, etc. The goal is to make people feel good about themselves, to become family.

5. Liberatory: emphasis here is on personal and social change. Learners learn how to use literacy to better understand themselves and their role in a larger society. They develop a critical awareness/understanding of how they live and why they live like they do.

Based on these goals, the various program focuses may be:

1. Workbook/Skills: the term literacy training is often used in conjunction with this focus and it is the most common in adult programs. The focus is to have the user demonstrate his/her knowledge of the preceding story or exercise.

2. Computer: similar to the previous focus except that the material is made available through technology and therefore gives the user more control.

3. Language: the focus is on understanding and using language. Learners become immersed in language and through it develop the skills and expertise which lead to literacy. A key term here is literacy or language development.

4. Transactive: the key term here is literacy development. It must contain materials directly pertinent to peoples' everyday lives and problems likely to be encountered. The focus is on dialogue, challenge, argument, problem formulation, brainstorming, and action in response to program material. It necessitates personal interaction and one person must take the lead in directing and challenging the users on how print affects their lives and how they can respond.

These and other elements were captured to create a framework for document analysis and synthesis.

3.4. Drawing Conclusions

The notion of "lessons learned" is complex, made complicated by such concepts as:

- perspective (provider and advocates, consumers and advocates, adversaries);
- time span (short-term or long-term);
- relativity (to other policy options);
- cost-benefit or return-on-investment;
- philosophical orientation, presumptions and values.

All of these concepts are incorporated into an analysis of the evaluation reports.

3.5. Structuring The Report

Section 4 – Setting the Stage – sets out the context for lessons learned from adult literacy interventions. This includes the status of adult literacy in Canada and other industrialized countries and the status at approximately the time of International Literacy Year (ILY) 1990. The rationale behind this is that most interventions that have been studied for "lessons learned" purposes – policies, programs, and practices – result from the attention paid to adult literacy just before and after ILY. Part of any evaluation is to examine the intentions and motivations for interventions, and Section 4 establishes both the extent of the adult literacy problem as a public policy problem and the rationale behind various interventions.

Section 5 – Interventions in the Intervening Years – sets out sample interventions that took place in the approximate time span of 1988-1998. The interventions are divided into the three policy contexts of literacy for citizenship, employment and lifelong learning, and sub-divided by type into research, policies, programs and specific practices. Sample interventions are provided for all contexts and intervention types. Many interventions have been formally evaluated, and many have not. The focus of this study is "lessons learned" through formal evaluations, and although the descriptions of interventions in Section 5 contain some statements of good practice or recommendations, Section 5 is only descriptive of sample interventions. The recommendations are not necessarily objective or based on formal evaluation. Formal evaluation reports of interventions are the basis of Section 6.

Section 6 – Lessons Learned Within Policy Contexts – enumerates the outcomes of formal evaluation studies. As with the previous section, the lessons learned are divided by context (literacy for citizenship, employment and lifelong learning) and subdivided by type (research, policies, programs, and practices).

Section 7 – Synthesis of Lessons Learned – is a compilation of the specific lessons learned framed into three categories: policies, programs and practices with indicators from formal evaluations and research reports from each context. Section 7 attempts to round out the circle, returning to the problems and "solutions" associated with adult literacy at the present time.

4. SETTING THE STAGE

The stage for this study is the current status of adult literacy programs and policies in Canada in particular, and more broadly speaking, in industrialized countries worldwide. Setting the stage for this analysis of "lessons learned" requires (1) setting out the current status, and (2) looking back to the inception of current policies and programs. Problems associated with adult literacy have been on the public policy agenda for at least twenty years in Canada, but most of the current policies and interventions derive from initiatives leading up to and resulting from International Literacy Year 1990. Beginning in approximately 1987-1988, the problem of adult illiteracy began to receive attention as a worldwide public policy problem. Setting the stage for this study, therefore, takes us back approximately 10 years.

4.1. Adult Literacy Around The Time Of International Literacy Year

In the late 1980s, people in many industrialized countries became concerned about the fact that a significant number of adults were unable to read and write at a level commensurate with the literacy demands of contemporary society.[3] Educators and taxpayers began to worry about the effectiveness of their school systems.[4] Educators of adults began to think about how best to teach basic skills to adults.[5] The business community was worried that functionally illiterate workers would cause business and industry to be less competitive.[6] Policy makers discussed how best to address the growing public pressure for remediation opportunities for educationally disadvantaged adults.[7] Governmental advisors and bureaucrats concerned themselves with appropriate finances and resource allocation.[8] Researchers and policy implementers were concerned with how to define literacy in such a way so as to facilitate action.[9] Numerous

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[3] *Broken Words: Why Five Million Canadians Are Illiterate.* (Calamai, 1987).
Literacy: Democracy's Basic Ingredient. (Chisholm, 1988).

[4] *Education: Problems And Solutions.* (Holmes, 1989).
Time To Look Again At The Education Of Canadians. (Lortie, 1990)
Schools And Quality. (OECD, 1989).

[5] *Participatory Literacy Education.* (Fingeret and Jurmo, Eds., 1989).

[6] *Workplace Basics.* (Carnevale, Gainer and Meltzer, 1990)
Illiteracy In Industrialized Countries: Realities And Myths. (Limage, 1990).
The Economics Of Adult Basic Education. (Rubenson, 1989).

[7] *Jump Start: The Federal Role In Adult Literacy* (Chisman, 1989).
Adult Literacy And Public Policy: Report Of An International Seminar. (Darville, 1988)

[8] *Enhancing Adult Literacy: A Policy Guide.* (Brizius and Foster, 1987).

[9] *Leadership For Literacy: The Agenda For The 1990s.* (Chisman and Associates, 1990)
Literacy And Research: Past, Present And Future. (Wagner, 1990).

conflicting definitions and measures of adult illiteracy were developed and used.[10] Many studies were launched and many recommendations were made at the international level, and at the national level in various industrialized countries such as the U.S., much of Europe, Australia and New Zealand, and Canada.

4.1.1. Adult literacy in industrialized countries

In 1992, the Organization for Economic Co-operation and Development (OECD) released the findings of its first international study on adult literacy.[11] This was significant because advanced industrialized countries had previously considered low literacy levels largely a problem for developing nations. The underlying reason for this new concern was suggested by work of the Centre for Educational Research and Innovation (CERI) on technological change, work indicating it was not that schools were turning out demonstrably less literate graduates than in the past, but that the ways in which adults need to apply literacy skills was becoming far more demanding. As the problems associated with adult literacy in industrialized countries had yet to be studied or understood, the OECD study was a significant attempt to pull together what was known at the international level.

The purpose of the study was to stimulate growing interest in a growing problem and the need for long-term solutions; stimulate further research; spread understanding across borders; contribute substantially to international understanding of literacy and illiteracy; and publicize the lesson that low literacy is not a problem affecting small, marginal sections of the population, but a central issue determining the competence of the workforce. The OECD acknowledged that:

- literacy levels were tied to the future capacity of firms and nations to respond to economic challenges;
- the opportunity existed in advanced countries to form a broad coalition to support the expansion of literacy training, but that there were persisting barriers to effective alliance-building among participants in the field;
- the field had been characterized by insufficient funding, insufficient policy attention and fragmentation;
- employers viewed this issue as critically linked to competitiveness; and

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[10] *Definitions And Evolution Of The Concepts.* (Thomas, 1989).
[11] *Adult Illiteracy and Economic Performance.* (Centre for Educational Research and Innovation, 1992).

- educators were beginning to gain lessons from connecting learning/training with the working lives and economic goals of learners.

At the time of ILY, OECD countries were entering an economic era characterized by new industries, new forms of production and competition, and a much higher premium on skills. Low levels of literacy and basic workplace skills made it difficult to obtain or retain employment. Defining literacy had been difficult; 'functional literacy' was a modern concept that sought to link literacy performance capabilities of individuals to the everyday needs in civic life and in the workplace.

The study determined that OECD countries had a major problem with functional literacy, with large proportions of individuals falling within lower and middle ranges of literacy scales, unable to participate fully in the economic and civic life of advanced nations. In France, an estimated 9% of the 37 million adults over the age of 18 in 1987 were affected by low literacy. At the same time, in England and Wales, the figure of 2 million adults with literacy problems was used to attract attention to the problem, and the expectations of ALBSU (Adult Literacy and Basic Skills Unit), which provided models for much literacy development in Canada in the 1980s, were expanded. The German Commission for UNESCO estimated the illiterate population to be between 500,000 and 3 million in Germany; but the upper estimate of 3 million was considered by experts to be a gross underestimation of the real situation. In the years leading up to ILY, literacy was only measured through proxies such as the level of educational attainment.

With regard to remedial interventions, this study showed that different approaches appeared to have different benefits and advantages; the key issue appeared to be finding the appropriate balance between central guidance and decentralized program implementation and innovation. Various international issues were identified. In the U.S., there was a lack of federal leadership and the limitations of decentralization. Canada was characterized by decentralization and local experimentation, with different federal and provincial roles. Sweden was in the process of reconciling national guidelines with local autonomy. France was searching for an appropriate delivery model. Germany was awaiting national awareness.

The study concluded that the linkage between enhancing literacy and sustaining growth required consideration of the economic cost of illiteracy, union participation, curriculum reform, restructuring work as a training strategy, learner-centred strategies. The field of adult literacy

and economic performance was determined to be an area that remains in sore need of measurement and assessment. There were few sources to provide policy-makers and practitioners with an overview of the problem and a framework for analyzing widely different and scattered programs; and international comparisons were especially lacking.

4.1.2. Adult literacy in Canada

Prior to 1991, the Canadian public was made aware that significant numbers of adults were functionally illiterate and that there was a two-dimensional problem. In 1983, Thomas had estimated that 20% of Canadian adults were functionally illiterate based on the UNESCO definition of functional literacy being the attainment of a Grade 9 education. In 1987, Calamai concluded that 24% were functionally illiterate based on the ability to complete some contemporary Canadian literacy tasks. This survey was the first direct measure of adult literacy abilities in Canada; and announcement of the problem indicated the need for more information to respond to this issue – governments and educators needed a precise assessment of the actual literacy skills of Canadian to target and promote initiatives for improvement. In 1989, Statistics Canada determined, through direct measurement in the Survey of Literacy Skills Used in Daily Activities (LSUDA), that 38% of Canadians aged 16 to 69 had varying degrees of difficulty with commonplace reading tasks. Despite the different measurement methodologies and different statistics, it was decided that many adults had inadequate literacy skills, not necessarily by those adults themselves, but according to arbitrary literacy standards determined by various authorities. They needed help to catch up.

Not only did the representative literacy tasks of contemporary society pose problems for some adults, the skill levels of literacy tasks were increasing and changing rapidly;[12] thus, there was also the additional problem of preparing for increased future requirements by those who may have had barely adequate skills at the time. It became clear that the individuals and their lack of skills weren't the sole problem; the level of literacy demands and tasks were, in some cases, determined to be inappropriate. On the one hand, many literacy tasks were unnecessarily difficult; for example, in the late 1980s, Alberta Consumer and Corporate Affairs rewrote most of the public information brochures intended for average citizens because the level was inappropriately high. On the other hand, individuals may have been expected to possess skill

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[12] *The Future Of Literacy And Literacies Of The Future.* (Levine, 1990).

levels, as entry to certain jobs or training programs, for which that skill was not required, thereby unnecessarily screening some people into "problem" categories. In summation, the problematic situation presented by adult illiteracy reflected both the problems of individuals and of literacy demands.

In the lead-up to ILY, Canadians learned about the problems associated with adult illiteracy. Illiteracy was conceptualized as a problem for some of those adults having difficulty with functional literacy tasks: according to Calamai and others, individuals who need literacy development are deprived of the psychological, sociological, economic and political values of literacy that functionally literate adults take for granted. Illiteracy was construed as a problem for taxpayers and governments: in 1988, the Canadian Business Task Force on Literacy (CBTFL) estimated that functional illiteracy indirectly cost Canadian society approximately $10.7 billion annually, expenditures related to occupational health and safety, direct training for employment, lost earnings of the unemployed, unemployment expenses, and prisons. Illiteracy was determined to be a problem for business and industry for whom direct costs approximated $4.2 billion annually in expenditures related to industrial accidents, lost productivity and direct training.

Adult illiteracy and the costs it generated were viewed from a large number and variety of conceptual perspectives. From the point of view of the ministries of education and many others, it was an educational issue. Others, such as the unemployed and underemployed and ministries of training and employment, viewed it as an employment-related problem. The Secretary of State in the federal government related basic literacy and life skills to human rights and citizenship. To business and industry, it was both an economic problem and a health/safety problem. Agencies dealing with public health, mental health, and families saw the costs to the well-being of individuals, especially their children. Literacy represents very different concepts to anthropologists, psychologists, political scientists, economists, labour organizations, peace activists, educators, environmentalists, employers, lawyers, and countless others. Formal adult literacy policy did not exist, and in industrialized countries like Canada, it was recognized by UNESCO and others that policy was very much needed.[13]

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[13] *Jump Start: The Federal Role In Adult Literacy.* (Chisman, 1989).
Worldwide Action In Education. (UNESCO, 1990).
International Literacy Year: Opportunity And Challenge. (Mayor, 1990).

In response to the obvious need to address the adult literacy problems, the federal government established the National Literacy Secretariat (NLS). In 1986, the federal government committed to work with the provinces, the private sector, and voluntary organizations to develop resources to ensure that Canadians would have access to the literacy skills that are the pre-requisite for participation in our advanced economy. The NLS was founded in 1987 to promote a variety of opportunities for people to improve their reading and writing skills, and to make Canada's social, economic and political life more accessible to people with weak literacy skills. In 1988, funding gave NLS the role of catalyst, to stimulate involvement by others through funding and partnerships with other levels of government. In 1990, ILY helped stimulate the growing awareness of the importance of literacy and to promote the development of adult literacy work. In 1992, the NLS was extended beyond its original five year term. The three major elements of the strategy of the federal government in the creation of the NLS were (1) support to the voluntary sector; (2) funding of joint federal-provincial/territorial initiatives; and (3) the presence of the NLS to carry out its roles of liaison, research and policy support for the federal government and to act as a focal point for the coordination of activities leading to ILY. The NLS encouraged involvement of various sectors of society through partnerships with provinces, territories, business/labour groups and NGOs. Through either of two funding streams -- the national grants program, or the federal-provincial/territorial program – eligible projects aimed to increase public awareness, carry out research, develop learning materials, improve access and outreach, and improve coordination and information sharing. From the $1 million budget in 1987, NLS in 1998 has an annual budget of $30 million. Since its inception, NLS has been pivotal in the field of adult literacy in Canada and internationally, as the evaluation of the NLS referenced in Section 6 verifies. Almost all the following interventions to understand and address adult literacy for citizenship, work and/or lifelong learning in Canada have been supported by NLS. NLS and others set out to provide a research base for the development of adult literacy policies, programs and practices. The first step was to better understand the links between literacy, positive citizenship, work and lifelong learning.

By 1991, the working definition for literacy was:[14] *the information processing skills necessary to use the printed material commonly encountered at work, at home, and in the community*. It was recognized that literacy was difficult to define and assess, being both a social phenomenon and a cognitive skill. Literacy skills were seen to be basic and essential tools which enabled and

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[14] *Adult Literacy in Canada: Results of a National Study*. (Statistics Canada, 1991).

enhanced communication, understanding and awareness. Life-long learning skills allowed individuals not only to develop professional skills but led to a better understanding of the multiple facets of daily living in a complex environment. Information, especially printed information, played an important role in many everyday activities such as community involvement, finance, and health and safety. From a labour perspective, these skills were a prerequisite for meeting the challenge of rapid economic changes – ability to acquire knowledge from printed material will be required to fully adjust to these changes as new technology, new products and new services will echo on all aspects of daily living. In this context, major findings of the 1991 study were as follows.

- With regard to reading skills, 62% of respondents were at level 4 (highest), 22% were at level 3, 9% were at level 2; and 7% were at level 1. With regard to numeracy skills, 62% of respondents were at level 3 (highest), 24% were at level 2 and 14% were at level 1.
- The level of reading proficiency had a strong and positive relationship with the level of schooling.
- Older Canadians were much more likely than younger adults to have literacy problems.
- The western provinces had the highest level of reading skills.
- Of adults born in Canada, 12% had reading skills assessed at levels 1 and 2 compared to 28% for immigrants.
- The age one learns a language plays a key role in development of reading skills.
- Reading skills for part-year workers were lower than those assessed for full-year workers.
- Workers in service producing industries had higher reading skills.
- Preferences for a literacy instructor: 48% preferred a teacher, 20% preferred a volunteer or tutor, 13% preferred a family or friend, and 19% indicated no preference.
- Certain groups of people had lower literacy skills than average: Aboriginal peoples, francophones, certain immigrant groups, people with disabilities, criminal offenders, poor people and the chronically underemployed and unemployed, and residents of the Atlantic Region and Northwest Territories.
- 94% of Canadians felt their reading skills were adequate for their daily activities.
- Non-participation in literacy programs may arise from 54% of level 1 and 82% of level 2 readers being satisfied with their writing and reading skills; limited logistical, social and economic resources; or low self esteem.

- 27% of a corporate survey indicated that product quality had been adversely affected by low-literacy and 32% said they could associate some productivity loss with literacy deficits.
- Social costs included unnecessary E.I. payments, inflated consumer prices, extra medical and worker compensation charges, tuition fees, subsidies, lower wages, lost taxes, reduced international competitiveness and jail for frustrated illiterates.
- Social consequences included limited citizenship participation, perpetuation of illiteracy in families, lack of access and information around health issues, and exploitation in the marketplace.
- Comparing rates of adult functional illiteracy in Canada with other countries was difficult because different definitions and variables were used to assess the size of the problem.

This study clearly set out the nature of the problem around the time of ILY. At the same time, Darville[15] produced a national account of the state of literacy work from a public policy perspective -- policies, programs and initiatives aimed at identifying literacy problems in Canada and key issues for beyond 1992. According to Darville, the history of literacy work and issues from the 1960s onward had drawn attention to the social and economic forces underlying literacy policy. It had been put on the Canadian agenda since 1985, given new visibility through ILY, with trends toward devolution and partnership in programs. Literacy was seen as necessary for economic development and also as a basic right. Darville acknowledged two contradictory views regarding the achievements at that time. He said that, on the one hand,

> *governments in Canada are not serious about creating a literate society. There have been recent gains in the extent of programming, but even this expanded activity is limited in proportion to need. Mandates for literacy are seldom deeply entrenched. And there are not in policy discussion either clear goals, or a consensus on strategies for attaining them.* But on the other hand, *the gains made in the late 1980's and in International Literacy Year in awareness and programming are significant. Literacy has become an issue for politics and policy….Current activity can be considered as a phase of experimentation, in which efforts to do literacy programming are multiplied, and the results of these efforts documented…. it is timely to raise a number of issues, open questions and recurrent tensions, that will be important in literacy work for the next decade…..discussion emphasizes the ways that documentation of experience in literacy work, and research into the conditions of literacy work, and stronger literacy policies, might strengthen future development.*

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[15] *Adult Literacy Work In Canada.* (Darville, 1992).

For Darville, the prominent issues in literacy for the 1990s were:

1. the nature and degree of political will required for the development of literacy in Canada;
2. efforts to develop a range of learner-centred and community-specific literacy programming and their relationships to moves towards co-ordination and accountability in programming activity (e.g., from packaged to learner-centred teaching practice; one-to-one volunteer tutoring, groups and unpaid workers; community standards; a range of programming; the anchors of illiteracy);
3. the uncertain future relations of community, institutional and workplace programs; and
4. the capacity of the literacy policy process to absorb the lessons learned in practice.

Darville concluded that

> *in this broad policy discussion, the literacy community may make affiliations with other movements for social equity. Even beyond that possibility, there are lessons in literacy work – about why and when and how adults learn – that are important for the whole policy discussion. The wisdom of literacy work is that people's learning and use of language and literacy must be centred in their communities and their various purposes. Learning begins close to people's lives in all their complexity, and often in conjunction with the organizations that people have learned to trust. ….In the 1990s it will be a challenge for the literacy community to assert this wisdom in a very broad and complex policy discussion, and for the economic and governmental institutions that promote and regulate literacy work to learn to assimilate its lessons.*

At the same time that Darville was studying public policy and Statistics Canada was revealing demographic details, the Prosperity Secretariat of the federal government had Barker[16] conduct a national study of the problems and issues from the perspective of those working in the field. For Barker, concerns about adult literacy interventions fell into four categories.

1. Policy-related concerns included the need for co-ordination of efforts, the issue of definitions, the relationship to other social problems, special needs groups and public perceptions.
2. Overarching issues were funding, research, student involvement, partnerships and the current stalemate in the appropriate approach to take.
3. Program-related concerns were related to student achievement, staffing and working conditions, materials and approaches, the use of technology, evaluation and accountability.

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[16] *Adult Literacy In Canada In 1992: Initiatives, Issues And Imperatives.* (Barker, 1992).

4. Issues related to prevention were educational reform and the development of a lifelong learning culture.

For Barker, also in 1991, recommendations made to the Prosperity Secretariat for action to remedy the adult literacy problem in Canada were based on the following premises, among others.

- Adult illiteracy was a national problem, therefore it required a national solution.
- Adult illiteracy was also an individual problem, therefore the solution must enable individual solutions.
- Adult illiteracy was a long-term, multi-facetted problem; therefore, it required a long-term, collaborative solution.
- For Canadian society, adult illiteracy was an expensive problem; therefore, it required an expensive solution.
- All stakeholders had the right to expect achievement and excellence from programs and initiatives directed at remedying literacy skills deficits.

Synergy, collaboration and innovation were required to create and sustain efforts at addressing adult illiteracy. Momentum appeared to be waning. Major problems existed for those attempting to address the issue of adult illiteracy, i.e., issues and unmet needs related to policy, programs, prevention and other overarching concerns. The major needs were for adequate funding and national co-ordination. Given these and other premises, the following recommendations were made.

1. The federal government should create a national policy on adult literacy and basic education that incorporates the complex nature of literacy as an educational, social, economic and political issue.
2. The federal government should create a national office or department of adult basic education, the role of which would be to develop and implement a national policy on adult literacy and basic education; function in an interdepartmental fashion, linking various federal departments; function in an intergovernmental fashion, linking all provinces in a common effort; and function as a clearinghouse, a centre for excellence, and a think tank.
3. In a co-ordinated, systematic and realistic fashion, the federal government must allocate the type and amount of long-term financial resources toward adult illiteracy that are directed at similar national issues jeopardizing Canadian prosperity and international competitiveness.
4. Provincial and territorial governments must create and implement policies on adult literacy and basic education.
5. Those responsible for the system of educating Canadian youth must examine and reform the current education systems in order to reduce the number of young people exiting with inadequate literacy skills.

6. In creating and implementing national and provincial policy, governments must directly involve those closest to the issue: the actual and potential students.

7. In creating and implementing policy on adult literacy and basic education, provincial and federal governments must consult with representatives of the special needs groups. In addition, special interest groups must examine and articulate their uniqueness and special needs related to literacy and basic education. They must be empowered and agreeable to being involved in the solutions to literacy problems.

8. The federal government, while developing national policy and through a national office, should establish national goals, and track progress towards achieving them. Similarly, program providers must help set goals for individuals and groups and track progress towards achieving them.

9. In their support for adult literacy and basic education, through policy and funding, provincial and federal governments must accept that adult illiteracy cannot be remedied by volunteers and special projects.

10. Universities should examine their contribution to problems in the school system that result in adult illiteracy and to solutions that increase adult literacy program achievement and excellence.

11. Business and industry, whether owned by Canadians or by non-Canadians, must invest in the skill enhancement of all workers.

12. Those who organize and provide programs, i.e., paid and volunteer administrators and teachers, must ensure student achievement and program excellence.

In the Prosperity Secretariat report, Barker concluded that the nature of the problem of adult illiteracy in Canada had essentially three components:

- the remedial component, i.e., the need to address the skill deficiencies in substantial numbers of adult Canadians;

- the preventative component, i.e., the need to take steps to prevent young Canadians from reaching adulthood without adequate literacy skills, and the institution of a lifelong learning culture in Canada; and

- the facilitative component, i.e., the efforts necessary to provide essential information to those who can not adequately access written information and to those who may never be able to read really well.

Interventions were needed to address all three components. This study is, in part, an examination of the progress made towards understanding and addressing the links between low-level literacy, positive citizenship, work and lifelong learning.

4.1.2.1. Adult literacy in the context of citizenship and empowerment

The issues that linked adult literacy to personal empowerment and participation in the community were identified by the National Literacy Secretariat,[17] the Ontario Ministry of Skills Development,[18] and others.

- Many people lacking literacy skills suffer from low self esteem and feelings of alienation. Social problems also arise from this: (1) children of parents with low-level literacy are more likely to be illiterate; (2) one of the highest concentrations of illiteracy in Canadian society exists in the correctional system; (3) low literacy levels are also more prevalent among welfare and employment insurance recipients; (4) special needs groups (single mothers, Native people, people with disabilities) may have financial and logistical obstacles to literacy upgrading.
- In 1990, 50% of social assistance recipients were functionally illiterate, and various groups of E.I. recipients including youth, immigrants, older workers and single mothers lacked basic literacy skills they needed in order to undertake other training which would lead to employment.
- A commitment to lifelong learning, by public policy and citizens, could extend into benefits outside work: better educated citizens and consumers. Improved literacy was seen as pivotal to enhancing the overall quality of life: workers could optimize work decisions and consumers could make informed lifestyle and financial decisions.

In the context of literacy for personal empowerment and community participation, subsequent solutions to the literacy problems have been clustered around the following concepts: (1) research; (2) policy development and implementation; (3) remedial programs offered by volunteer, peer tutors, and qualified instructors; (4) activities to reduce literacy requirements where possible; (5) public relations programs to present the positive values of literacy; and (6) teaching and advocacy programs directed specifically at particular populations, i.e., women, families, First Nations, persons with disabilities, youth and seniors.

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[17] *Creating A Learning Culture – Work And Literacy In The Nineties.* (National Literacy Secretariat, 1990).

[18] *Literacy-The Basics Of Growth.* (Ontario Ministry of Skills Development, undated).

One specific example is Canada's Aboriginal community, for which literacy was acknowledged as a major problem. A 1990 study of First Nations peoples in Saskatchewan[19] revealed, for example, that 45% of the Saskatchewan Native Population had less than grade 9 education, compared with only 22% of the province's non-Native population. The barriers to participation in adult literacy programs identified by the study were:

- Situational (financial resources, logistics, special needs, jurisdictional);
- Institutional (lack of programming, instructors, facilities, funding, and lack of culturally sensitive and appropriate curriculum materials);
- Informational (lack of awareness of illiteracy as a problem, of information, of communication and of role models); and
- Psycho-Social (lack of confidence, cultural conflicts, lack of family/community support).

Recommendations were made for a Literacy Action Plan specific to First Nations.

1. Literacy programs should be accountable and responsive to community needs and desires and be related to a larger community development process.
2. Support should be supplied to communities in the rejuvenation of Aboriginal languages.
3. "Learning to Learn" programming should be provided.
4. Total cultural, spiritual, intellectual, emotional and physical aspects of human development should be considered in programs.
5. Basic literacy should be moved away from "dependence" and "volunteerism" and be established as an integral factor of Adult Basic Education (ABE).
6. Facilities and on-going funding were necessary, and obstacles from governmental boundaries should be overcome.
7. The development of culturally relevant material was critical.
8. ABE programming should have Aboriginal control and involvement and be community-based.
9. ABE should empower learners to take greater control of their lives and become more effective, self-realized individuals.
10. Learning centres should meet the needs of the community and individual and be promoted on a priority basis.

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[19] *Aboriginal Literacy Action Plan – A Literacy Practitioners' Guide To Action.* (Saskatchewan Indian Institute of Technologies, 1990).

11. Community leaders should be made aware of their responsibilities and roles.

For the First Nations, as for many other groups, problems with literacy translated into much larger problems for individuals and for society, problems associated with lack of active, positive participation in the community. It was fully recognized that literacy skills were required by individuals to exercise their rights, roles and responsibilities as citizens in a democratic society, and that many Canadians were unable to do so because of low literacy skill levels.

4.1.2.2. Adult literacy in the context of the economy and the workforce

It was also recognized that literacy skills were required by individuals to find a job, keep a job or get promoted and that many Canadians were unable to do so because of low literacy skill levels. This cost individuals, employers and society at large. In 1988, the Canadian Business Task Force on Literacy, in *Measuring the Costs of Illiteracy in Canada,* presented a typology of costs of illiteracy and the fairest estimate of the order of magnitude of these costs given the state of current knowledge. The study concluded that:

1. Research into costs of illiteracy was imprecise and some costs could not be estimated at all. Estimates were typically only best guesses.
2. Literacy is a single symptom of a very complex social or personal problem that would require a complex response.
3. The direct cost to business of illiteracy in Canada was estimated to be in the order of $4 billion or more annually.
4. The cost to Canadian society as a whole was estimated to be approximately $10 billion.

The outcomes of the study were far-reaching. The statistics were widely quoted, without acknowledgement of the measurement problems, but with effect: the cost of illiteracy was put on the public agenda.

The links between adult literacy and the economy were expanded on and publicized by the National Literacy Secretariat, the Ontario Ministry of Skills Development,[20] the Hudson Institute,[21] the Conference Board of Canada,[22] and others. Individually and collectively they made the following assertions.

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[20] *Literacy-The Basics Of Growth.* (Ontario Ministry of Skills Development, undated)
[21] *Workforce Literacy: An Economic Challenge For Canada.* (Drouin, I990).
[22] *Basic Skills – Basic Business.* (Conference Board of Canada, 1992).

- The world economy was becoming global. Countries with the best educated and best trained work force were forecasted to prosper in a world "more reliant on brains than muscle." Future growth would depend on workers' talents.

- Increasing technology was requiring new workplace skills that involved more education and training, better communication and higher levels of literacy. Skilled workers and companies that use new technologies would improve productivity and help Canada compete internationally.

- To be more competitive, Canadian companies were growing, becoming more efficient by retooling, modernizing, installing sophisticated new technology. If workers were not prepared for these changes it could cost directly and indirectly (lost productivity, poor quality, excessive supervisory time, lack of promotion, poor morale).

- Technological change made workers' specialized knowledge and skills obsolete in roughly three to five years. 'Enabling skills' were necessary: reading, writing, numeracy, listening, computer literacy and the ability to process new information and solve problems.

- Literacy no longer simply meant the ability to read and write, it meant the ability to meet the demands of new technologies: complex communications and comprehension skills. Lack of these skills, leading to an inability to cope with new technology, could cost billions in reduced productivity, lower efficiency and an increase in accidents.

- Humans who could only do what machines could do were in stark danger of technological displacement. There was, however, a growing domain of activities that only humans could do or that machines did poorly (greater diagnostic and problem-solving abilities, communication skills, processing information).

- In Canada, spending on training programs did not measure up to other countries. In 1992, less than 15% of employers offered some form of basic skills training.

- People who invested in higher education were likely to be rewarded with a higher income. Continuous learning could also be acquired outside of academic institutions. Since worker's productivity involved the ability to process information in the workplace, for most occupations, the most important skill was 'learning to learn.'

- Jobs in the 90's were projected to be in service industries and manufacturing jobs that required continuous training in new technologies. Appropriate training could also make the worker more adaptable.

- Immigration would have to meet a large part of the shortage in labour requirements, and specific training and literacy programs were needed to allow even highly skilled immigrant workers to obtain jobs.

- The median age of workers would rise. Extensive education and training would be necessary for older workers in declining industries. The number of youth in the workplace would decline by nearly 25% over the next 10 years, so existing employees would have to be retrained.

- Low literacy skills created stress in the workplace. Especially at senior levels, illiteracy was a highly sensitive issue.
- Personal incomes of literate adults were 44% higher than for illiterate adults.
- It was essential to ensure that workers and would-be workers had the initial education and literacy levels to pursue education, training and retraining throughout life.

In 1992, a joint symposium of the Canadian Labour Force Development Board (CLFDB) and the Conference Board of Canada[23] raised the following questions relating to adult literacy.

1. *In the context of the changing structure of the economy/workforce, and in light of Canada's dependence on world trade, how do we ensure that our service sector will be cost effective so we can compete internationally? In a high wage / high skills economy where demand for services is the major area of growth, what will happen to the 30% of students who do not even get basic education? Are they at risk of chronic unemployment as the mismatch between their skills and labour force requirements worsens? What can be done to ensure that older workers can adapt in a technologically advanced workplace? How do we establish special partnerships among educational institutions, labour unions, businesses and all major stakeholders? Should employment equity awareness programs be in place to help the unemployed integrate into the workforce? Should firms conduct awareness workshops to address restrictive attitudinal and cross-cultural barriers?*
2. *In the context of literacy and basic education, to what extent are there literacy and basic skills shortages? How significant is the problem and what is its real or potential impact on our competitiveness? What resources are there available to solve the problem? To what extent are these issues seen as investments rather than expenses? Is it important for public awareness of the economic issue to be heightened? Are stakeholders prepared to co-operate in the conception, planning and action plans to improve literacy and basic skills?*
3. *Recognizing the need for standards and measurement, how can we ensure more and better testing, and evaluate training courses? How can the programs be made effective and efficient so there is a good return-on-investment (ROI)? What measurements can increase equity? Should there be national standards for occupational competence or skills levels and for education and training delivery? How can these standards be translated into programs at the community level that are responsive? Should there be formalized national crediting of career-path training?*

These questions served to frame policy and program development in the ensuing years. Each organization went their own way in addressing these issues.

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[23] *Canadian Training and Development Symposium – Issues and Perspectives.* (Canadian Labour Force Development Board and the Conference Board of Canada, 1992).

In the context of literacy for participation in the economy and industrial development, subsequent interventions aimed at solving literacy-related problems have clustered around (1) macro policies and research to reinforce the need for workforce change and skill upgrading for competitiveness in the global economy; (2) workplace literacy programs developed by unions and/or employers, with teachers, tutors, and/or technology, in specific work sites or industry-wide; (3) workforce literacy programs developed by the formal education system or community-based agencies to provide learning and support programs to individuals; (4) public relations campaigns to reinforce the need to consider the human costs of unemployment and underemployment.

4.1.2.3. Adult literacy in the context of teaching and learning

In addition to literacy for citizenship and for employment, growing emphasis was placed on the link between literacy and lifelong learning, i.e., the acquisition of literacy skills as a foundation for basic and continuing education. The links between adult illiteracy and the education system were drawn by the media, with headlines such as:

- *Education system blamed for illiteracy* [24]
- *Education is Canada's worst subject*[25]
- *Time to look again at the education of Canadians*[26]
- *Vested interests keep Canada's students near bottom of the world class*[27]
- *We need a forum for vigorous debate about our schools* [28]

The links between adult literacy and effective teaching and learning were set out by the National Literacy Secretariat, the Movement for Canadian Literacy, the Canadian Teachers' Federation,[29] the International Reading Association, the Ontario Ministry of Skills Development[30] and others. Individually and collectively, they sought to understand the optimal conditions for delivering literacy instruction to adults.

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[24] Panzeri, 1990. (*Edmonton Journal*).
[25] Raymond, 1990. (*Globe and Mail*).
[26] Lortie, 1990. (*Globe and Mail*).
[27] Thorsell, 1990. (*Globe and Mail*).
[28] Wolfe, 1990. (*Globe and Mail*).
[29] *Teachers And Literacy* (Warren, Rees, and Edwards, 1991) .
[30] *Literacy-The Basics Of Growth*. (Ontario Ministry of Skills Development, undated)

In 1991, the Movement for Canadian Literacy[31] (MCL) attempted to influence the delivery of literacy instruction and programs. A vision for the provision of literacy education addressed the need for a coordinated policy for literacy in Canada which would ensure equitable access to quality basic education for all adults who may need or desire it. MCL recognized that the development of a variety of programming initiatives for adult literacy over the past 20 years had been uneven and generally delivered on an ad hoc basis; and that this did not ensure universal access or consistency in quality. There had been a widespread impression that literacy education and awareness had increased as a result of the literacy campaign started by the NLS and ILY, but the actual extent of that increase was impossible to determine. According to MCL, there had been no systematic monitoring and evaluation of programs so it was not possible to measure the quality or effectiveness of those programs. The MCL determined that the essential 'next step' must be the definition of standards for the provision of literacy education, and they proposed an organizational structure intended to make the implementation of standards for high quality programming possible. For MCL, general principles of good practice included clear program aims, sound teaching methodology, learner-centred programs, universal free access, student support services, qualified and suitable staff, appropriate facilities, variety of materials, program accountability. Elements of a plan of development included:

- a lead provincial ministry or department with goals of providing sufficient Adult Literacy and Basic Education programs and addressing at least 10% of potential need in the first 5 years;
- an Adult Literacy and Basic Education Division to coordinate, establish annual budgets, designate public provincial delivery organizations and develop provincial guidelines and standards;
- a regional coordinator for every 100,000 adults (subject to geography and demography and establish a literacy unit for every 250 students or 3500 instructional hours per week);
- program delivery with approved elements of practice, program accessibility, resources and facilities, staffing;
- program evaluation to address accountability, internal and external reviews and participatory processes; and
- publicizing programs, offering staff development, research and development and funding.

Recommendations made by MCL and others were difficult to implement because, in fact, there was no national or federal body mandated to receive or process the recommendations.

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[31] *Organizing Adult Literacy and Basic Education in Canada – A Policy and Practice Discussion*

The Ontario Ministry of Skills Development had a different solution to offer.

> *Because many people who need literacy programs are isolated and hidden and may feel they are voiceless, alienated groups with little power to make their needs known through normal channels, perhaps only the immediate community, employers, friends and family can identify and encourage those who need literacy training. Because the number adults needing basic skills training, and the difficulty of reaching out to them is too great for one institution, all of society – business, labour, union, education, community volunteer groups and government- should become partners in shouldering the responsibility. Media has a solid economic stake in this issue and can publicize the importance of the issue and put the public in touch with the individual human experiences of the illiterate adult. Businesses can set up workplace literacy programs, keep written materials in plain language, develop literacy materials directly related to their particular industry, and promote literacy through internal publications, literacy organizations and labour / management co-operation. Learning centres are storefront literacy programs and represent a partnership between business, governments and educational institutions. Workers are more open to skills upgrading when they are approached as a group, therefore union and labour organization support is important. These groups are naturally sensitive to the needs and rights of employees and encourage companies to provide workplace training. Literacy organizations at all levels can provide an important network of information and materials exchange.*

The Ministry proceeded to fund and facilitate the start up of literacy programs where they were commonly available: the classroom, the community and the workplace. In short, it was recognized there was a need to develop adult literacy and basic education programs, and that the delivery of adult literacy programs and services had to be different from the delivery of literacy or basic education programs to children.

In the context of the teaching and learning of literacy, subsequent interventions aimed at solving literacy-related problems for adults were clustered around (1) research to determine the nature of the problem; (2) adult literacy and/or basic education courses offered by some school boards and colleges with qualified instructors; (3) volunteer tutoring programs offered by community agencies such as libraries and churches; (4) remedial programs either with instructors or via technology; and (5) unique programs for individuals with special needs.

Document. (White and Hoddinott, 1991).

4.1.3. Summary

In summation, in the years prior to 1990, there was growing concern for literacy in the context of citizenship, work and learning. In the environment of this heightened awareness of the problems of adult illiteracy in Canada and worldwide, the United Nations sponsored International Literacy Year 1990, and the launch of the International Decade for Literacy.

4.2. Adult Literacy In 1998

What we now know about adult literacy in industrialized countries is largely the result of a seven-country adult literacy study -- the International Adult Literacy Survey (IALS) -- conducted in 1994 by the OECD to create comparable literacy profiles across national, linguistic and cultural boundaries. Successive waves of the survey now encompass close to 30 countries around the world. The international report of the IALS,[32] in which Statistics Canada and HRDC played major roles, was released in December 1995 by the OECD.

It is noteworthy that the measurement of literacy had evolved from the pre-ILY studies. The term 'literacy' was used to refer to a particular skill – namely, the ability to understand and employ printed information in daily activities at home, at work and in the community – to achieve one's goals, and to develop one's knowledge and potential in three distinct literacy domains:

- Prose literacy - the knowledge and skills needed to understand and use information from texts such as editorials, news stories, poems and fiction.
- Document literacy - the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables and graphics.
- Quantitative literacy - the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a chequebook, figuring out a tip, completing an order form or determining the amount of interest on a loan from an advertisement.

The IALS measured adult literacy skills through tests using materials drawn from life at home, in the community and at work. For instance, the tests use labels from medicine bottles, simple invoices and receipts, materials that provide directions to assemble things, transportation maps, articles from newspapers and magazines, and items requiring simple mathematical calculations.

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[32] *Literacy, Economy And Society*. (OECD, 1995)

The IALS measured literacy abilities in relation to formal schooling, formal and informal training, and applications of reading practices and behaviours in daily life.

In IALS, literacy is viewed as a continuum, not simply a matter of whether or not one can read or meet some minimum standard of numeracy, with benefits related to each successive level of literary achievement. For example, while the patterns vary slightly from country to country, both the proportion of unemployed and the proportion in the lowest level of income decline as the literacy level increases. Literacy strongly influences individual and social well-being.

4.2.1. Literacy in industrialized countries

Some general conclusions about literacy in industrialized countries at the present time are drawn from IALS, for example:

- Literacy is distributed differently among the populations of different countries.
- Education strongly influences literacy, but does not determine it alone.
- Literacy improves with practice and deteriorates if not used.
- Literacy is linked to economic success.
- Literacy practices in the workplace are critical to the maintenance of a skilled workforce able to be trained and to adapt to changes in technology and market conditions.
- Few adults acknowledge that literacy is a problem for them.
- Adult literacy is an issue which demands serious attention by decision and policy makers.

More specific observations may be made about the adult literacy situation in most OECD countries. Depending on the country, from 15 to over 50% of the adult population in the countries surveyed face tremendous difficulties in coping with the literacy and numeracy demands placed upon them in today's complex and changing economy and society. The myth that low skills is a problem for developing countries only has been exposed in every country where data have been collected.[33] Part of the explanation is that skill demands have risen dramatically; however, low and insufficient skills are a problem with profound social and economic consequences for the individuals, families and communities concerned.

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[33] *Literacy Skills For The Knowledge Society.* (HRDC and Statistics Canada, 1998).

- In Australia, approximately 45% of adults aged 16-65 score at the lowest two of five levels of literacy performance. The distribution of literacy skills seems more similar to that in some European countries than to the other English-speaking countries: a somewhat even distribution versus higher than average numbers of adults in both the lowest and highest levels of literacy.
- In Belgium, where there is a less severe 'literacy deficit' than any other country surveyed except Sweden (under 40% at levels 1 and 2 in Belgium), there is a relatively equal distribution of literacy skills in the population.
- In New Zealand, about half of the adult population score at literacy levels 1 or 2, more than any other country except Ireland and Poland, and there is a relatively polarized literacy distribution.
- In Ireland, more than half the adult population score only at literacy levels 1 or 2; a relatively small number of adults over 45 have completed secondary education (45% compared to 70-85% in the majority of countries surveyed); and adults without a full cycle of secondary education do worse than their counterparts elsewhere. Fewer than a quarter reach literacy level 3 or above, the level considered by experts as a minimum for coping with the rising skill demands of modern life and work in the knowledge economy.
- In the United Kingdom, just over half of the UK's adults show relatively low levels of literacy (levels 1 or 2) and the influence of family background on literacy, over and above the influence of education, appears to be stronger than in most other countries. The UK labour market pays a high premium for literacy skills, more than in other countries except Ireland and the U.S..
- Among the countries initially studied (Canada, Germany, the Netherlands, Poland, Sweden, Switzerland and the United States), Canada's overall literacy performance is relatively good. Canada has a greater proportion of its population at the highest levels of literacy than most of the other nations, and the proportion of population at the lowest level of literacy is about average. Sweden has a higher proportion of its population at the highest levels (levels 4/5) than Canada in each of the three dimensions of literacy measured (prose, document and quantitative literacy). Germany has a higher proportion at the highest levels of quantitative literacy. Differences in literacy levels are due to a number of factors including years of formal education, the quality of that education and literacy practices at home and in the workplace.

The purpose of the IALS study was to investigate and compare factors relevant to literacy in a variety of countries, based on the assumption that a country's economic performance relies heavily on the ability of its labour market to adapt quickly to development and changes in the global economy. The study determined that literacy is of fundamental importance to individuals and to nations, and the report clearly illustrates the links between investments in education and economic success, and between education and literacy. Literacy plays an important role in the determination of wages - the contribution of literacy comes on top of the effect of education on earnings. Literacy outcomes vary considerably according to socio-economic status in some of the countries studied. In North America and several European countries, scores on the quantitative scale show the strongest correlation with income. Adults with higher levels of education, on average, are more literate than those at lower levels but the relationship is not always that clear-cut. In each country surveyed, significant numbers of less-educated persons performed at the highest levels of literacy and some well-educated people performed at the lowest. Results also revealed that literacy is maintained and strengthened in daily practice, and that literacy practices at home and in the workplace are crucial to literacy. Complex connections exist between the skill requirements of the workplace and the actual skills possessed by workers but it is uncertain whether workers lose skills because their jobs do not require them, or whether jobs can be upgraded to foster and reinforce the development of a more skilled workforce. Literacy levels are clearly linked to occupations and industries. Important differences in the population distribution of literacy skills exist, which are large enough to matter both socially and economically. Literacy is strongly associated with economic life chances and well-being. Low skills are found not just among marginalized groups. The data show that adult education and training programs are less likely to reach those with low skills. Adults with low literacy skills do not usually consider that their lack of skills presents them with any difficulties. This may reflect the fact that many respondents are in jobs that do not require them to use literacy, a situation that is likely to change as the knowledge society matures.

Most importantly, IALS results reveal that literacy can be changed through public policy and private initiative.[34] There are effective means of fostering literacy. For example, the dramatic improvements in literacy across generations illustrate the effect of increases in education of Canadians. Literacy, in the broadest sense, is a shared responsibility; and the sponsors of IALS

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[34] *Highlights Of Results From IALS – International Adult Literacy Survey.* (OECD, Statistics Canada, and HRDC, 1995).

concluded that governments, institutions, communities, families and individuals have a vital role to play.

4.2.2. Literacy in Canada

Now, in 1998, a very great deal is known about the nature and extent of adult literacy and related problems in Canada, and most of what we know is based on IALS data. The IALS study reveals, for example, that only 20% of the Canadian population have high levels of literacy; 22% have great difficulty reading; 26% have limited skills; and 33% read well but may have some problems with more complex tasks. Canadians with low literacy skills earn significantly lower incomes, experience higher unemployment and rely to a greater extent on government programs (employment insurance and social assistance). To better understand and utilize the IALS data, the National Literacy Secretariat (HRDC) in partnership with Statistics Canada and the Applied Research Branch (HRDC) sponsored a series of policy research monographs based on the results of the IALS: literacy and the economy; literacy, poverty and unemployment; the role of literacy in youth transitions; the effect of immigration on literacy; and the connections between literacy practice and achievement. Each monograph is a wealth of information and detailed analysis; and a thumbnail sketch is provided here.

4.2.2.1. Literacy skills of Canadian youth

Literacy levels of youth are the highest among all age groups in Canada, according to an analysis of IALS results. There are, however, dramatic variations in average youth literacy scores across provinces, and socio-economic background is a key factor in inequalities in provincial literacy scores for youth. Youth from advantaged backgrounds performed well in all provinces; however, those from disadvantaged backgrounds have wide variation in their literacy scores.

Using the data from IALS, Willms[35] studied the distribution of literacy skills for Canadian youth aged 16 to 25, and the underlying factors that influence literacy. This age group was considered significant because it is a transitional group - generally completing formal schooling and entering the labour market. Willms examined the relationship between socio-economic status and

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[35] *Literacy Skills Of Canadian Youth.* (Willms, 1997).

provincial differences in youth literacy scores and concluded that provinces that do well overall do so by raising the levels of literacy skills of youth from lower socio-economic backgrounds. Differences among provinces are relatively small when considering youth from average or above-average socio-economic backgrounds, but there are large differences among provinces in the performance of youth from lower socio-economic backgrounds. The Willms study identified and benchmarked the disparities in literacy skills among youth with differing characteristics and socio-economic status, as measured by family background variables such as parents' education and occupation.

According to Statistics Canada, indicators such as these can measure the pool of economic and cultural capital for sustaining the labour market over the next two or three generations. Previous studies from the IALS have documented that strong literacy skills are associated with employment stability, higher incomes and access to "knowledge-based" jobs. Poor literacy skills are associated with higher rates of unemployment and large losses in lifetime earnings. Given the importance of literacy in the emerging knowledge economy, the presence of such inequalities in youth literacy scores may impose social and economic costs on individuals with poor skills.

4.2.2.2. Literacy skills of adult Canadians

Literacy skills of older adult Canadians are significantly lower than among youth. According to Willms,[36] the average literacy skills of adults older than 45 are markedly lower than those aged 16 to 45. Canadian women scored higher than men across all age groups on scales that measure their facility in understanding prose, i.e., the knowledge and skills needed to understand and use information from texts including news stories, movie reviews and fiction. Both sexes had similar abilities when using documents such as maps and schedules. Young men aged 16 to 25 and men older than 65 outscored their female counterparts on quantitative literacy tests. Quantitative literacy refers to the ability to use numbers in tasks such as filling out a bank slip, calculating a tip or completing an order form. Some of the differences in literacy skill between these groups are, however, attributable to differences in respondents' socio-economic background, years of education, and whether their first language was English or French (languages of the tests). Adults whose first language is other than English or French

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[36] *Literacy Skills Of Canadian Youth.* (Willms, 1997).

scored substantially lower than individuals whose first language was one of the languages of the test. The study suggests that the learning curve is long for acquiring English or French skills. Even after 30 years of speaking English or French, those who spoke another language at birth still had a difference in literacy skill representing the equivalent of about two years of formal schooling.

4.2.2.3. Literacy and health among seniors

Using Canadian data from IALS, Statistics Canada, HRDC and others[37] compared the health-related characteristics of seniors with their literacy skills and practices. The findings support the view that literacy skills and practices may serve as "barriers" for seniors in their attainment of good health. According to the data, seniors are a particularly vulnerable group. For all three dimensions of literacy identified by the IALS (prose, document and quantitative), literacy skills were higher among younger age groups and lower among the elderly. For example, about 67% of people aged 16 to 24 had literacy abilities ranked in the three highest levels, compared with only 21% of those aged 65 and over. In other words, 8 in 10 seniors had literacy skills at the two lowest levels, making them especially at risk in medical situations that may demand high literacy ability. The potential for errors in medication is enormous among seniors unable to properly understand written directions on prescription drugs, or among those who are unable to decipher a written text. Elderly patients will experience this problem to a much greater degree, since they are more likely to use medication and take several prescription drugs simultaneously. A significant finding of this study was that a large number of older Canadians at the lowest literacy level required help dealing with information from government agencies, businesses and other institutions. Only 58% of seniors with low literacy did not need assistance, and did not need help to fill out forms such as applications and bank deposit slips. This suggests that many seniors cannot easily understand much of the material from these sources. Thus, information about health care or medical issues may miss a large number of the people most at risk because it is not targeted to their reading skills.

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[37] *Health And Literacy Among Seniors.* (Statistics Canada and HRDC, 1994).
At Risk: A Socio-economic Analysis of Health and Literacy Among Seniors. (Roberts and Fawcett, 1998).

4.2.2.4. Literacy in Canadian workplaces

Literacy utilization in Canadian workplaces profiles the literacy skills of workers with the literacy requirements of the workplace. The IALS data was mined by Krahn and Lowe[38] to study workers and how their literacy skills "fit" their job requirements. The study reveals that about three-quarters of Canadian workers are employed in a job appropriate to their literacy skills. Approximately 2 million workers with low literacy skills are in jobs that make few demands on their reading, writing and numeracy abilities. Close to 4 million workers with medium-level literacy skills are employed in jobs with mid-range demands, and about 2.8 million Canadians with high literacy skills have jobs that require frequent use of their literacy skills. However, about one-quarter of workers are a literacy "mismatch" for the work they are doing. According to Krahn and Lowe, almost 2.5 million workers have higher skill levels than demanded by their job (literacy surplus), and as many as 635,000 workers may not have sufficiently well-developed skills to do their jobs adequately (literacy deficit). This is further evidence of the two-dimensional nature of the adult literacy problems: literacy skill deficits for some individuals, and increasing and/or inappropriate literacy demands.

Based on IALS and other studies, the situation for workplace and workforce literacy is considered serious by the BC Workforce Literacy Advisory Council[39] and many others.

- 88% of the workforce see upgrading knowledge and skills as key to economic security.
- 91% of small or medium sized businesses believe they will have to up the level of worker skills to become more competitive.
- Corporate management realizes that employees with basic skill deficiencies will limit organizational effectiveness and sustainable competitive advantage.
- 70% of employers feel that they have a significant literacy problem in some part of their organization.
- Workers need to continuously acquire new skills and qualifications to succeed in modern workplaces and also to be able to adapt to organizational change.
- New jobs being created in Canada tend to require a higher level of basic skills in literacy and numeracy, and better problem-solving skills, than jobs being created 10 or 20 years ago.

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[38] *Literacy Utilization In Canadian Workplaces.* (Krahn and Lowe, 1998).
[39] *BC Workforce Education Initiative – A Proposal To The National Literacy Secretariat.* (Huget, 1997).

- In the new economy, one will be expected to reinvent one's knowledge base throughout life.
- Canada needs a massive retraining effort to be made by business and government or the standard of living will drop.
- For many workers, upgrading basic skills has become a precondition for retraining on the job.
- In BC, there is a move from resource to an information-based economy. Affiliate unions need to recognize this and to initiate basic skills upgrading among their membership and seek out partnerships with employers and educational institutions.
- Literacy is not simply reading, writing and math skills, it also necessitates the development and strengthening of skills as individuals and as a collective, for critical thought and action.
- Literacy is an essential tool in a knowledge-based economy.
- Workplace education is increasingly being seen by management and unions as an investment in people, not just an expense.

According to the OECD,[40] the IALS has contributed new insights into the nature of literacy that are crucial for developing policy strategies. Literacy is now viewed as 'organic' in character, developing and changing over the life span, rather than simply being acquired in youth and kept for life, like a university degree or the ability to ride a bicycle. It is recognized that literacy skills must be maintained and developed further through active use. This raises three issues that create challenges for policy makers beyond their traditional engagement with the educational attainment of youth.

1. *How much do adults use their literacy skills in the workplace, and does this influence performance? The evidence indicates that among blue-collar workers in particular, there is an untapped pool of talent, which could be lost if it is not better used through changes in work practices.*
2. *How much do adults use their literacy skills in daily activities at home and in the community, and how does this relate to their literacy levels? The evidence shows wide variations from one country to another, but in general, a lower engagement in literacy practices outside rather than inside work, with a particular slant towards better-educated groups who have adequate reading materials at home.*

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[40] *Literacy Skills: Use Them Or Lose Them.* (OECD, 1998).

3. *How can employers and communities help to create a culture of literacy and lifelong learning? Employers have a greater potential role than previously thought, because of the importance of the work context to much adult learning. The way in which work is organized, and the incentives for workers to upgrade their skills, are two key features that need improving. Policy change will therefore need to involve a partnership between governments, employers and individuals that seeks to promote a literacy-rich work culture.*

Issues of workforce and workplace literacy are integrated with most other aspects of the literacy situation: basic education attainment, economic status and security, health and safety, training and lifelong learning, personal empowerment and career development.

4.2.2.5. Literacy and economic status

Analysis of IALS data[41] has shown that inequalities in literacy are highly associated with inequalities in income and occupational status: people with low levels of literacy are restricted in their access to certain kinds of employment, while those with higher literacy skills are more likely to attain high-paying jobs. Because literacy is so central to economic and social status, decreased inequalities in literacy may be fundamental to supporting enhanced social cohesion. Using the IALS data to study the relationship between literacy and low income, Shalla and Schellenberg[42] determined that the level of literacy skills an individual possesses can spell economic success or failure. The last two decades have witnessed an explosion in the development of technology and in the endeavours of industries to compete globally by merging and downsizing. Adult literacy is understood to be fundamental to the economic and competitive performance of industrialized nations. Close to 50% of adults at the lowest level of literacy live in households with low income, compared with only 8% of those at the highest level of literacy. Also, 66% of those at the lowest scale were less likely to find work during 1994 and, if they did work, earned less than $15,000. Strong literacy skills are the key to success and to economic well-being in the information-based economy. Those with weak literacy abilities will find it increasingly difficult to achieve and to gain a foothold in the labour market. According to Shalla and Schellenberg, this should be of special concern to policy makers in the context of global economic restructuring.

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[41] *Reading The Future: A Portrait Of Literacy In Canada* (Statistics Canada and HRDC, 1996).
[42] *The Value Of Words: Literacy And Economic Security In Canada.* (Shalla and Schellenberg, 1998).

4.2.2.6. Literacy and social assistance

In 1998, Kapsalis[43] mined the IALS data to study the effect of education and work on the literacy of social assistance recipients. The results show that literacy is a strong predictor of employability. For example, full-time annual earnings are more strongly correlated with the level of literacy than with the level of education. According to Kapsalis, a likely reason is that literacy reflects not only the level of education but, also, the quality of education and the extent to which the literacy "muscle" is used at work and at home. Kapsalis found that social assistance recipients (SARs) have a lower level of education and literacy than non-SARs, and he hypothesizes that the absence of work itself has a negative effect on literacy. The correlation between literacy activities at work and literacy level is stronger among SARs than non-SARs. The IALS results also show that among SARs work is not associated with lower literacy activities at home. In fact, working SARs are more likely to use a public library, do voluntary work, or read a book than non-working SARs. When difference in levels of education are taken into account, there is little difference in literacy activities at home between working and non-working social assistance recipients.

4.2.2.7. Literacy and education

Analysis of the 1994 IALS has shown interesting relationships between literacy skills, educational attainment and learning opportunity.[44] For example, while some adults have a high degree of literacy proficiency despite a low level of education, some have low literacy levels despite a high level of education. Another example: education and training programs serve those who have high skills, rather than those who need them most.

In 1998, in a position paper[45] prepared for the Council of Ministers of Education Canada, HRDC re-stated that:

- essential skills are enabling skills that help adults to perform required job tasks, learn occupation-specific skills, and adapt to workplace change;

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[43] *The Connection Between Literacy And Work: Implications For Social Assistance Recipients.* (Kapsalis, 1998).

[44] *Reading The Future: A Portrait Of Literacy In Canada.* (Human Resources Development Canada, 1996).

[45] *Updating Essential Skills For The Workforce.* (HRDC, 1998).

- the definition of essential skills has evolved beyond the three R's to include such dimensions as oral communication, thinking skills, working with others, continuous learning and computer use;
- structural changes in the economy leading to a new and complex labour market environment requires higher levels of essential skills;
- the IALS indicates that a large number of Canadian adults are in need of essential skills upgrading and are more likely than those with high-level skills to face difficulties in acquiring and maintaining employability;
- most of the workers of tomorrow are already in the workforce, putting a new emphasis on retraining.

HRDC recommended the development of public policy reflecting a new paradigm of adult workplace education and lifelong learning, i.e., identifying the workplace as a venue for lifelong learning, forging partnerships and building linkages to policy, planning for sustainability, valuing the principles of adult education, enhancing prior learning assessment and recognition, and utilizing new learning technologies. It was recommended in this paper that the CMEC launch a National Strategy for Developing and Strengthening Essential Skills throughout Life.

4.3. Assessing Progress

Some who have been involved in the field of adult literacy for a very long time are critical of the lack of progress in addressing the adult literacy problem, but they do more than criticize. They make coherent, sometimes impassioned recommendations for change.

In 1998, according to Gallagher,[46] Canada's image as one of the most literate countries in the world has changed to one in which a 'shocking 25% national illiteracy rate' exists and the illiterate have 'no leaders, no power, little support, few weapons and no idea where they were headed'. Gallagher asserts that:

- more resources are necessary to provide literacy training or a much higher price will be paid for social services later;
- institutions, unions, business, and community based organizations all have roles to play and training in the workplace needs to be emphasized;
- in the long term, renewed emphasis on family, pre-school, and early school literacy seems to offer the best chance of reducing low literacy;

[46] *Literacy In A Learning Society*. (Gallagher, 1998).

- Canada needs strong, sustained public support for its world leadership role in tackling literacy issues; including recognition of the positive developments of Canada's new 'children's agenda' and the growing concern for the development of a lifelong learning society.

Also in Canada in 1998, Calamai[47] concluded that much hasn't changed since 1986 when he conducted a seminal literacy study in Canada for the Southam News chain. According to Calamai, the "movement" is still reaching less than 5% of adults who need help. He says:

- *It still comes down to a bunch of people with a phone, a desk and a minimal bank account directing volunteers to work with 40 to 50 learners. Meanwhile, in the bigger picture, adult enrolment in continuing education courses is shrinking across the country.*
- *To bring the reality and image of literacy to the fore, a connection has to be made with the imagination of the Canadian public. Part of the reason is that literacy is compartmentalized.*
- *Society values the Knowledge Age but devalues reading and literacy in daily life.*
- *The literacy movement hasn't graduated from supplication to advocacy (as with landmine or AIDS issues).*

Calamai recommends the following.

1. All of society should take responsibility for literacy. People who could never hope to have the same literacy ability as the general population wouldn't be left to fend for themselves.

2. The Prime Minister should call a "Literacy Summit" and the provinces could not only attend, but engage in co-operative federalism. *This jurisdictional turf war is more important to politicians today than realizing the full potential of 10 million people.*

3. Literacy should not be expressed in economic terms. No longer should literacy be seen as really important only because of finding and keeping jobs. *We are not defined in terms of our jobs, of how much use we make of literacy while working but of how much use we make of it in living.*

4. School boards should open their facilities to adult education. A belief in the value of an educated population would guarantee that funding was available for everyone to finish high school.

5. 'Folk schools' should be created as in Sweden, a country which committed an additional $650 million a year more to adult education.

6. Public funding should never be cut off for successful programs.

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[47] *Literacy: A Future – Peter Calamai's Address To The AGM Of Movement For Canadian Literacy.* (Calamai, 1998)

7. There should be the equivalent of Winnipeg's "Aboriginal Literacy Foundation" in every city across Canada.

8. The high-tech sector should become one of the biggest corporate supporters of literacy. They'd point out that technology is not an end in itself but a tool and be involved in a cultural change about literacy.

9. Getting it right the first time would be the educational goal so resources and emphasis would shift from remediation to prevention. Teachers and aides would be hired instead of depending on volunteers to support kids with reading problems.

10. Literacy volunteers should be accorded with community recognition and standing.

11. Literacy stakeholders should stop thinking that there is one right way to teach reading and get on with using anything that worked.

12. Knowledge should be accessible to all Canadians.

13. People who need help should want to be involved in literacy programs because knowledge and learning could be so attractive.

14. The 1998 federal budget should have announced the creation of a Targeted Learners Investment Fund.

15. Being a professional Literacy Worker should be thought of as a career.

Calamai acknowledges that *none of them is going to happen without a well-devised, superbly-executed literacy advocacy strategy.*

Reinforcing this critique are the words of actual literacy learners.[48]

> *While large numbers of those with low literacy skills may not recognize that they have a problem, or may not be ready to take action to improve their literacy skills, significant numbers of adults are ready and willing, but not able to do so. We know from contacts within the literacy community that right now, thousands of Canadians want to improve their literacy skills but come up against a range of barriers. Here are a few real-life examples:*
>
> - *One learner has not been able to access any sponsorship for upgrading because she is married and not considered in need, although the family can't afford to pay for her to attend programs. This is a common situation.*
> - *A vocational counsellor labelled one man as "borderline mentally retarded." In spite of this he fought to become literate, finish high school, get a college diploma, and get a job. He had talked to a number of others whose education was blocked by this kind of labelling.*

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[48] *MCL's Learner Advisory Network: Project Proposal.* (MCL, 1997).

- *Another learner, a single parent who in a few years has brought herself from basic literacy to grade ten, cannot be sponsored for more education because the meter has run out -- there is a limit to the number of terms her province will sponsor. Day care and transportation are also an on-going challenge.*
- *Another single mother made the difficult choice to take a 'project' job where she finds and organizes resources for other adult learners, at the cost of interrupting her own upgrading. When the project ends, she will have more skills, but not the qualifications to compete for decent jobs. If she had chosen to go to school, her family's income would have been even lower.*
- *The learning of over 400 adult students in Ottawa has been abruptly interrupted or ended, as program funding for Ottawa School Board literacy and ABE programs has been cut. Most of these students will not be able to find other literacy programs in the community. The few who can find programs will have lost time and momentum, and will have to build up their courage, find childcare and adjust to a new program all over again.*
- *We know a number of learners who have dropped out of programs that went too fast or didn't provide the support they needed. But approaches that let students go at their own pace are disappearing, as programs are under increasing pressure to produce results fast. Self-paced programs are important for parents, people with health problems, people with self-esteem issues, etc.*
- *Native learners face a range of economic, social, and cultural barriers to their education.*
- *Social assistance policies in some provinces force people to take any employment they can get, or participate in 'workfare,' even if they want and need to go to school in order to have any long-term employment prospects. The Employment Insurance eligibility period is not long enough to complete the education many laid-off workers need.*

If that is the current status of the adult literacy problem, what has been done in the intervening years between 1988 and 1998?

5. INTERVENTIONS IN THE INTERVENING YEARS

From just before ILY (1990) to the present, numerous interventions – policies, programs and strategies aimed at adult literacy – have been undertaken, in Canada and in other industrialized countries, on the basis of the plans and recommendations arising from the contextual environment. The following are samples that may or may not be typical interventions, set out by policy context: literacy for citizenship, work and learning. Interventions have largely taken the form of (1) research with recommendations for action, (2) policy development and implementation, (3) programs for instruction and/or advocacy, and (4) actual strategies or practices (e.g., teaching or recruitment).

5.1. Interventions Within The Context Of Literacy For Citizenship

In the context of literacy for personal empowerment and community participation, interventions related to literacy problems – research, policies, programs and strategies -- have been clustered around the following concepts: (1) research to better understand the nature of the problem; (2) policies to support research, programs and strategies, (3) remedial teaching / learning programs offered by volunteers, peer tutors, and qualified instructors; (4) strategies to reduce literacy requirements where possible; (5) public relations programs – advocacy and preventative -- to present the positive values of literacy; and (6) teaching and advocacy programs directed specifically at special populations, i.e., women, families, First Nations, persons with disabilities, immigrants, youth, offenders and ex-offenders, and seniors. Fundamental to these interventions is the assumption that individuals with low literacy skill levels have difficulty exercising their rights, roles and responsibilities as citizens in a democratic society. The negative outcomes for individuals and for society can be general problems with self-esteem and inadequate access to equitable participation in the community, or specific problems with lawlessness and other socially disruptive behaviours.

5.1.1. Policies aimed at literacy for citizenship

Policies have ranged from the very general to the relatively specific: at the national, provincial, or local level. In very broad terms, macro-level policies have included resourcing research and the development of (1) some specific literacy programs, e.g., volunteer tutoring programs and

family literacy, (2) some networks, research, and development of materials to support literacy workers, and (3) public relations campaigns to create public awareness and recruit students. The policy problems being addressed were related to the portion of the population that does not actively contribute to the community, and in fact, draws on community resources for support due to low literacy levels.

5.1.1.1. Sample policies

Policies in this area in Canada are implicit largely in the mandate and activities of Human Resources Development Canada. A major policy initiative by the federal government has been to support research that helps understand the nature of the problem of adult illiteracy. Working together, Statistics Canada and Human Resources Development Canada have produced the major research projects, and the National Literacy Secretariat (NLS) of HRDC has participated in or funded almost all the adult literacy research that has been undertaken in Canada. In developing a framework for NLS research, the objectives were to:

- provide sound information to inform literacy policy and practice in Canada;
- to encourage research projects to prevent duplication and ensure that research meets widely-felt strategic needs;
- promote collaboration between researchers, practitioners and learners;
- develop an increased capacity to do high quality literacy research;
- ensure that results of research work are widely disseminated to practitioners, program and policy developers, researchers and the broader literacy and non-literacy community.

The guiding principles of NLS's research-supported activities are that research should be founded on partnerships between researchers, practitioners and learners; the approach to research support should be balanced; the areas of research should reflect the wide range of literacy needs; applied research remains the focus; quality research is the goal; building research capacity for the future is important; and research results must be disseminated.

A profile of literacy activities supported by NLS and its partners in Canada in 1995-96 provides insight into the policies and commitment of governments, service providers and volunteers in helping others acquire and advance their literacy skills.[49] Learning materials were developed for adult learners with physical disabilities, for Aboriginal learners, and for clear communication in

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[49] *Working In Concert - Federal, Provincial And Territorial Actions In Support Of Literacy In Canada.* (NLS, 1996).

the health profession. Public awareness was increased by ABC CANADA, the Peter Gzowski Invitational Golf Tournaments, and family literacy initiatives. Research was conducted into the literacy skills used in everyday activities, francophone literacy, and international adult literacy. Access and outreach were improved by, e.g., Laubach Literacy and Workplace Education Manitoba. Coordination and information-sharing were improved for learners with intellectual disabilities. The provinces and territories indicated the factors that contributed to success in policy and program implementation.

1. In Alberta: good working relationships and an increase in co-operative and partnership ventures.
2. In BC: base funding, that means that programs have status and support and can meet local needs by being offered in a variety of formats in satellite campuses as well as on the main campus of each college. The provincial policy of offering Fundamental level Adult Basic Education tuition-free helps increase access to literacy opportunities at the colleges.
3. In Manitoba: strong partnerships. Very positive relationships with the field. Training opportunities and overall responsiveness to practitioners' needs . Successful accountability mechanisms, promoting reflection and planning.
4. In New Brunswick: CASP (Community Academic Services Program, created in 1991). Greater outreach and about one-fifth of the cost of traditional training; and international success. South Africa, Morocco, Burkina Faso and Rumania have visited CASP; CASP joined CIDA in their mission to Burkina Faso and received awards, Conference Board of Canada, UNESCO and Governor General's Flight for Freedom Award (for lifetime achievement in literacy, Canada Post Corporation).
5. In Newfoundland and Labrador: community learning centres, program flexibility, distance education technology for many literacy activities since the population is small and scattered; strong volunteer support.
6. In NWT: helping the community to develop literacy programming with a sense of ownership and responsibility for literacy issues in the local community; literacy projects linked with other developmental initiatives operating in the community.
7. In Nova Scotia: partnerships with the community and various levels of government; commitment to the principles of adult education and to the importance of literacy and numeracy; partnership between Adult Education Section and NLS.

8. In Ontario: understanding the diversity of the adult learners; supporting this diversity i.e. English, French, Aboriginal peoples, American sign language, business, labour, women, persons with disabilities, ethnocultural minority groups, Francophones; consideration of all feedback and incorporation into programming strategies.
9. In PEI: dedicated individuals/volunteers, informal communication networks, good working relationship between program deliverers and government program administrators.
10. In Québec: a working definition of success in literacy training developed by Laval University's Centre de recherche et d'intervention sur la réussite scolaire for the adult learning environment; the organizational framework; the governmental environment; the social, cultural and economic environment; the living environment of adult learners; and the individual adult learner.
11. In Saskatchewan: revised eligibility criteria for access to federal grants; priority to new initiatives: family literacy, Aboriginal literacy, youth-at-risk, rural transition or workplace literacy; access to new groups : friendship centres, tribal councils, immigrant women.
12. In Yukon: process of implementing strategy and developing literacy programming.

In 1997, Federal Budget Initiatives[50] supported NLS in its programs: (1) promoting family literacy projects, supporting research and funding the development of Canadian-made family reading materials; and (2) supporting workplace literacy by developing more Canadian-made workplace learning materials, training of specialized workplace literary practitioners, developing pilot workplace programs and supporting new areas of research.

In conclusion, federal policies are aimed at improving literacy relative to active, positive participation in Canadian society; however, policies aimed at the delivery of programs and services aimed at literacy for lifelong learning are largely within provincial jurisdiction and they are set out in Section 5.3.

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[50] *Budget 1997 - Implications For Literacy In Canada.* (National Literacy Secretariat, 1997).

5.1.1.2. Policy analysis

In the U.S., at the National Center on Adult Literacy, Wagner[51] set out the "myths and misconceptions in adult literacy" that affected education and literacy policy. He observed that *the problem of adult literacy, like those of education in general, have been much in the media in recent years. As such, much of the public has formed opinions on literacy, often based on a rather superficial understanding of the complex set of factors which must be addressed for real change to take place.* According to Wagner, the literacy context was charged with incapacitating myths such as the following.

1. *Myth: Literacy changes the way humans think, their logical abilities, and their intelligence.*

   Reality: There is no proof to support this assertion, as little or no impact of literacy on cognitive functioning or intelligence has been found in careful research studies. This myth has been counterproductive in a number of ways, especially in terms of the raising self-esteem of learners who come into programs feeling that they have failed in prior learning experiences.

2. *Myth: Illiteracy in America will be eradicated by the year 2000 (or anytime soon).*

   Reality: National surveys of adult literacy indicate that this target cannot be met. It is more improbable because the literacy demands of everyday life and work are constantly expanding over time. In addition, a definitional issue will always exist, i.e., who's literate enough. Americans need to be broadly literate, skilled in numeracy and technology, and able to communicate effectively.

3. *Myth: The literacy situation in America is terrible relative to other industrialized countries.*

   Reality: According to the UN, the U.S. has a 4% illiteracy rate, roughly equivalent to the other industrialized nations of the world. However, American statistics are based on levels of schooling achieved, rather than measures based on literacy levels per se. The literacy situation in the U.S. is serious but similar problems of low literacy are becoming apparent in many European countries as well. It is low-literacy which is causing public concern.

4. *Myth: The U.S. government has made a major investment in literacy and workplace training and education, an investment that compares favourably with other industrialized countries.*

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[51] *Myths And Misconceptions In Adult Literacy: A Research And Development Perspective.* (Wagner, 1993).

Reality: Comparatively speaking, the U.S. has yet to put into place the kinds of innovative schemes for tax rebates on worker training that exist in France and Sweden, nor the skills-orientated apprenticeship programs favoured in Germany. Indeed, relatively little has been invested to date in workplace literacy programs, and the U.S. is only now beginning to have some consensus on models for assessment and evaluation of such programs.

5. *Myth: The increase in public awareness and attention has led to significant improvements in literacy in this country.*

   Reality: The increase in attention has not been matched with a similar increase in funding for adult education. Studies show that there is a high dropout rate (nearly half of all new adult learners who complete one hour of instruction drop out within 16 weeks) for adult learners, that staff have only minimal training in adult instruction, and that data on students 'meeting their desired goals' is highly subjective and susceptible to misinterpretation.

6. *Myth: If only we could apply better instructional tools, taking advantage of high technology, our literacy problems would disappear.*

   Reality: Technology for literacy remains an unfulfilled prophecy, largely due to the inability to create, and lack of funding for, instructional techniques that are appropriate and cost-effective.

According to Wagner, discussion and analysis of the limits of literacy knowledge were crucial in order to continue to improve the quality and effectiveness of adult literacy programs. As in K-12 schooling, the field of adult literacy harboured many diverse and conflicting beliefs. Exploration of the basis for such beliefs was one of the most important avenues for improving adult literacy in America. Wagner concluded that the 1990s would see improved agencies; enhanced instructional systems that make use of advanced technologies, including speech, for much more specific skill needs than are taught today; improved and simplified learner assessment and program techniques; and an expansion of well-trained professional staff for instruction.

Also in the U.S., some have concluded that policies to increase adult literacy skill levels, and thereby reducing unemployment and dependence on welfare, have failed. According to the Employment Policies Institute (EPI),[52] for example, American literacy rates continue to decline despite evidence of the effects of literacy and work experience on wages, and massive spending on education. There are more than 6 dozen federal literacy programs, and even though the U.S. government spends hundreds of millions of dollars on adult literacy programs,

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[52] *From Welfare To Work, The Transition Of An Illiterate Population.* (Employment Policies Institute, 1997).

less than 10% of the population was served between 1990 and 1992. An EPI paper analyzes the skill-wage equation, concluding that America's staggering illiteracy rate is not only a major cause of income discrepancies, but a major impediment in the crusade to move millions from welfare to work. They note that there are roughly 4 million welfare-dependant adults in America, of which one-third are functionally illiterate and another third possess only marginally better reading skills, still unable to perform many basic job-related tasks. They also note the statistics indicating a correlation between literacy and economic success, e.g., more than 32% of Americans who report no income are functionally illiterate; more than 44% of working men and 64% of working women who dropped out of high school are low-wage workers; employed workers with little to marginal reading ability earn only a third that of the most literate Americans, and those who test at the highest literacy levels have medium incomes 100 to 300% higher that those who test at the lowest literacy levels. In terms of future adult literacy policy, EPI says:

> *It is important for policymakers to recognize the diversity within the welfare population. One-fourth have skills to succeed in the labour market. They need help with other impediments to employment (such as child care or medical benefits) or simply incentives (or requirements) to move forward. Another quarter could probably proceed to job training or engage in a combination of basic skills upgrading and job training as a way of improving their employment options. The remainder, about half of the total, present real challenges in terms of how to help them overcome basic skills deficiencies – deficiencies that arise as a result of failures in the school system, unrecognized learning disabilities, and other personal and familial difficulties that pose a serious barrier to training and employment. These challenges cannot be expected to be overcome through the typical, short-term, adult literacy program.*

5.1.2. Research into literacy for citizenship and empowerment

In addition to the mammoth International Adult Literacy Study, various other studies were undertaken in the intervening years – research to better understand the scope of the problem, typically aimed at policy formation or policy analysis. For example, in 1993, Jones[53] concluded that the discussion of literacy had often been unproductive because it has recognized only two categories: literate and illiterate. Therefore, for research and measurement purposes, a continuum was created which defined 4 levels of reading skills:

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[53] *Reading, But Not Reading Well – Reading Skills at Level 3, A Report from the Survey of Literacy Skills Used in Daily Activities.* (Jones, 1993).

level 1: difficulty with printed material – most likely identify themselves as people who cannot read

level 2: use printed material for limited purposes only – would recognize themselves as having difficulties with common reading materials

level 3: can use reading materials for a variety of situations, provided the material is simple and clearly laid out, and the task involved were not too complicated – while these people do not see themselves as having significant reading difficulties, they tend to avoid situations requiring reading

level 4: meet most everyday reading demands – a diverse group exhibiting a wide range of reading skills

Because some 22% of the adult Canadian population were at level 3, Jones' report analyzed this group to provide data for adult literacy policy. He concluded that:

- level 3 readers have learned to read, but were less sure about their skills than those at level 4 and so use those skills less often;
- evidence indicates that they were 'narrow' readers, competent in the literacy tasks with which they were familiar;
- new work will pose a larger transfer problem for level 3 than for level 4;
- there has been little body of practice to guide work with this group in terms of literacy training – workplace programs have just begun to address this area;
- as most people in this level have completed post secondary education, they would prefer a program delivered through an educational institution over a community or workplace situation.

According to Jones at that time, one of the challenges of literacy practice in the 90s would be to address all of these issues and to find ways to accommodate these learners, who were likely to be the majority of learners in the next decade. It is noteworthy that, from that time forward, the word "illiterate" was systematically removed from the policy discussions and public relations.

In a review of the methods of testing literacy during the past 75 years, the various correlates of literacy skills, and the impact of adult literacy programs on literacy skill development, the National Institute for Literacy[54] compiled a Compendium of Quantitative Data and Interpretative Comments. The authors conclude with extensive illustrations that the armed forces' ability tests and several major literacy tests used during the past 75 years have had similar test items and

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[54] *Adult Literacy In The U.S.: A Compendium Of Quantitative Data And Interpretive Comments.* (NIL, 1995).

produced similar score patterns. Intergenerational analyses repeatedly have found that parents' education, especially the mother's educational level, is correlated with their adult children's scores on these tests. A review of research on listening skills and reading skills indicates high correlation-- those with low reading skills often have low listening abilities. There is substantial correlation between scores on the tests and occupational status, but within an occupation there is only a small correlation between test scores and job knowledge or job performance. Most evaluations of adult literacy programs show that literacy test scores increase an average of only .5 to 1.5 'grade levels,' and gains are little affected by participants' entering skill levels or by the hours of instruction. The few evaluations examining learners who have remained in literacy programs for two or more years found that little improvement is made after the first year. Based partly on this evidence and partly on recent developments in cognitive science, the authors conclude that reading skills are a function of one's knowledge base and information processing skills. They conclude that substantial gains in general reading skill are unlikely to be achieved quickly because success depends not only on decoding skills but also on knowledge about the subject matter being read. They suggest that in order to acquire high levels of reading skills, programs should encourage adults to engage in extensive outside reading, which hones decoding and meaning extraction skills while expanding the knowledge base.

In addition to the major research projects, various other studies have been aimed at better understanding the relationship between literacy and citizenship. For example, citizenship-related research was conducted by the Canadian Home and School and Parent-Teacher Federation through a national consultation in 1993.[55] The concept of adult literacy was included in a study focusing on the barriers to the participation of ethnocultural minorities, visible minorities and first-generation Canadian parents in the education of their children. The report concluded that *parents must be educators of the education system and promote different methodologies in teaching. The value systems of the new communities must be validated in the education system. There are three stages in the integration process for new Canadian....the first is settlement, where the focus is on issues of survival, such as linguistic skills and access to the culture of a new country. The second stage is integration in the new community and the third is citizenship and contributing to the new country.* Adult literacy was determined to be a necessary tool for parents to assist their children in the education process and also as part of

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[55] *Removing The Barriers To The Participation Of Ethnocultural Minorities, Visible Minorities And First-Generation Canadian Parents In The Education Of Their Children.* (Canadian Home and School and Parent-Teacher Federation, 1994)

being connected to the community. MCL, in its 1994 Annual Report, noted that the following family literacy supports were identified by respondents to the 1994 National Family Literacy Survey: long-term multi-source funding, public awareness strategies, quality family literacy materials, and research and training.

In 1995 the National Literary Secretariat was evaluated and in 1997 there was an increase in NLS funding; NLS decided to reassess the focus of its research support activities.[56] The assessors gave credit to the NLS for advancing literacy research in Canada, but they noted *the scope and quality of research was not always adequately monitored and that the results of research projects had not been adequately disseminated…..the NLS needed to identify more clearly the objectives to be accomplished through its research funding activity.* Areas that have been identified that warrant NLS attention were disseminating research findings, building Canada's literacy research capacity, creating bridges between researchers and practitioners, and a more strategic and coordinated approach to NLS research support. While the new focus on research infrastructure development represents a commitment to create an environment which will be supportive of literacy research, this initiative has not yet been evaluated.

5.1.3. Programs aimed at literacy for citizenship

Local delivery of programs could have (1) a general focus – open to all, e.g., at a community college or library, or (2) a specific focus, e.g., for special populations like ex-offenders, the unemployed, women or families. The delivery could be provided by paid instructors, trained volunteers or learning technologies; this is discussed later in the study. The following are a sample of programs by focus or targeted audience with the intention of improving literacy skills, personal empowerment, and positive community contribution for individuals.

5.1.3.1. General programs

In many communities, programs have been developed to provide remedial or preventative literacy programs for adults. They are typically open to all who are interested and attempt to focus on individual needs (upgrading literacy skills for employment, for family responsibilities, for community participation). Non-formal programs, usually involving volunteer tutors, are often

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[56] *Enhancing Literacy Research In Canada*. (National Literacy Secretariat, 1998).

provided by social agencies such as the YMCA or libraries. Some formal programs are offered by school boards and community colleges, but their focus may be more on lifelong learning and further education than on community participation.

5.1.3.2. Literacy for the unemployed and marginalized

In Canada, one of the primary providers of literacy for active involvement in the life and work of the community has been Frontier College. While it has targeted various populations at different times and locations – migrant workers, street people, children living in poverty – the focus has been on those who are disenfranchised by low literacy and other social problems. Frontier College has pioneered many non-traditional approaches – reading tents in bush camps, working with street youth, working with persons with physical disabilities, recruiting university students as literacy tutors.[57]

In the U.S., the Center for Employment Training[58] (CET) had developed a model which integrates vocational training and literacy education to train and place 'hard to serve' individuals and retrain newly displaced workers. The CET first took into account the following issues related to employment training policy -- on-going unemployment, stresses on family life, growth of the underclass, and the characteristics of the labour force of the '90s – and made the following claims.

- The prolonged effects of joblessness and poverty have already created a substantial and expanding underclass, and the only way to break the downward spiral of lawlessness and dependency is to improve the capacity of the poorest in the U.S. to support themselves through employment.
- Adult illiteracy, high unemployment and a burgeoning underclass threaten the American way of life; and labour force illiteracy threatens economic prosperity.
- Having a skilled and literate labour force is critical to the success of the North American Free Trade Agreement (NAFTA) and U.S. economic security.
- Military cutbacks and industry restructuring permanently displace hundreds of thousands of workers.
- The impact of joblessness and poverty can destroy the family. The growth of the underclass is a threat to the American way of life.

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[57] *Creating A Love Of Reading.* (O'Leary, 1991).
[58] *National Integrated Vocational Training And Literacy Education Initiative.* (Centre for Employment Training, 1994).

- With large numbers of middle class workers unemployed, it is tempting to shift limited resources away from the poor to middle class retraining, but that would be short-sighted and costly.

On this basis, CET described a cost-effective way that the poorest in the labour force, those with the fewest skills, who are fully or functionally illiterate and who have limited English skills can become productive members of society. Subsequently, CET developed training for hard to serve, long-term employed persons and retraining for displaced workers that can be done at the same time; and outlined a five year $500 million program to extend the nationally recognized CET training model to 100 cities. According to CET, the key to its success is its training design which integrates vocational training, basic skills remediation, English language instruction, and behaviour modification in a single intensive and cost-effective program. Key aspects include: (1) open entry/open exit, self-paced training, (2) assessment used only for instruction planning and competency validation, and (3) one stop services. Additional features are assessment and vocational counselling, hands-on vocational skills training, basic skills instruction including ESL, individual and family counselling, social service referral and advocacy, work behaviour modification, thinking and problem solving skills development, job development, and follow-up services. CET enhancements include training stipends, enhanced family support services, targeted Services for the Learning Disabled. CET also provides Replication Services for outreach to potential program operators, conducting orientation workshops, identifying qualified program operators, negotiating funding arrangements, training staff, developing courses, opening new branches, and recruiting students.

Based on its experience, CET has provided the following informal lessons learned.

- Employment training policies must reflect the realities of a rapidly changing labour force.
- Literacy is not enough – job skills training is a must.
- Adult literacy instruction and vocational skills training should be integrated and developed in a workplace context.
- Comprehensive services should be available in a comprehensive one-stop program.
- Family assistance should be part of a comprehensive adult training program.

5.1.3.3. Literacy for families

"Family literacy" is the name given to community-based initiatives designed to break the cycle of illiteracy, because children of parents with low literacy rates were at most risk to exhibit low reading skills and lack of interest in reading. Family literacy provides an opportunity for parents to further their education while laying the foundation for pre-school children to enter the formal education system. These programs emphasize the intergenerational aspect of learning, and have both remediation and prevention as goals. A 1996 American study[59] revealed that poverty, illiteracy, poor education, and social risks were correlated problems in America; and that higher levels of adult education had been shown to have a positive impact on the income level as well as the educational future of the children in a family. Family literacy programs were created as a solution: programs which emphasized community and family resources as a pathway to remedy low literacy skills.

Recognizing the distinct nature of assessing need and designing intergenerational literacy programming in their own communities, Isserlis, McCue, Weinstein, and Sauve developed recommendations for those who develop and work in family and intergenerational literacy programs in Canada.[60] They define intergenerational learning as a process inseparably connected to culture and to other factors, such as parents'/caregivers' previous experience with formal education, the expectations of children and their interaction with adults within households and communities. Intergenerational learning, according to these literacy practitioners, is fostered by community-based organizations with programs held in accessible and familiar locations, scheduled at convenient times, offering a variety of learning events, and using multiple learning formats. Good programs also incorporate flexibility; demonstrate that learning is critical to all age groups; and create awareness for lifelong learning by increasing intergenerational programs, expanding market efforts, promoting consistent staff training. They conclude that intergenerational learning opportunities could (1) facilitate better interaction among constituents, agencies and communities by educating both providers and users of services around issues of language, culture, expectations; (2) increase access to literacy learning opportunities in contexts that are familiar and comfortable to participants; and (3) strengthen community development overall by acknowledging the role of literacy within

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[59] *Characteristics Of Effective Family Literacy Programs In Michigan.* (De Bruin Parecki, Paris, and Seidenberg, I996).

[60] *Community Literacy- An Intergenerational Perspective- A Report For Those Who Develop And Work In Family And Intergenerational Literacy Programs In Canada.* (Isserlis, McCue, Weinstein, and Sauve, 1994).

provision of traditional services as well by strengthening a community's ability to identify and address its own needs related to literacy and social services.

In Alberta, the Family Literacy Action Group (FLAG) evaluation project sets out a number of recommendations for quality family literacy projects. Inspired by the International Reading Association's Family Literacy Commission and by the works of Katherine Ryan, "family literacy" was defined as:

> *the way parents, children, and extended family members use literacy in the home and in their community; [family literacy].. occurs naturally during the routines of daily living…drawings, writings; ..[it is] purposeful or spontaneous..; ..reflects ethnic, racial, cultural heritage..; [it is] ..the acquisition and development of school-like behaviours..; ..concerns family as a unit ;..may include parenting education; [develops according to] ..community need; [focuses on] varying systematic adult-child interactions; [must be] in liaison with community agencies..*

Therefore, to ensure best chances of success of a family literacy project, FLAG has learned the following lessons: understanding and respecting the diversity of families; building on existing literacy behaviours; abandoning all attitudes of we're here to "correct" or "fix"; ensuring accessible, non-threatening and friendly locations; following sound educational practices; helping families share their learning experiences; creating support groups; improving the quality and range of parent-child interactions; providing ideas and materials for literacy activities at home; encouraging parent input into the academic development of their children; and collaborating and combining the strengths of many agencies. FLAG commissioned a *Guide To Evaluation For Family Literacy Projects In Alberta* [61] in which a five-tiered approach to evaluation was developed comprising valuable suggestions for pre-implementation, accountability, program clarification, progress and program impact. The list of relevant tools for evaluation include intergenerational needs assessment, observations records, various questionnaires on attitudes and practices, goals and expectations, attitudes and beliefs, literacy practices and activities were provided in great detail. Lessons learned from the formal evaluation of family literacy programs are set out later in Section 6.

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[61] *Guide To Evaluation For Family Literacy Projects In Alberta.* (Skage, 1997).

5.1.3.4. Literacy for offenders and ex-offenders

It is well-known that literacy levels in correctional institutions are, on average, very low, and both offenders and ex-offenders face real "citizenship" problems as a result. Therefore, correctional education programs are designed to help inmates acquire basic skills, social skills, workplace readiness and vocational skills, and to foster enhanced self-esteem. The ultimate goal of correctional education is to reduce recidivism – to help inmates become self sufficient so that they can be re-integrated into society and become productive and successful workers, citizens, and family members.

Correctional education programs in general, and specifically for adults with learning disabilities, was the focus of an issue of the NALLD newsletter.[62] Correctional education in the U.S. is a worthwhile investment, according to Steurer from NALLD, because the majority of inmates in America's prisons have lower literacy skills and lower educational attainments than the nation as a whole, and correctional education programs help inmates to break the cycle of low literacy skills and criminal activity by providing them with the knowledge and skills necessary to succeed in the workplace and in society. Steurer notes that a recent study indicated that inmates who undergo correctional education average up to a 20% reduction in recidivism from that of the general population. According to Steurer and others, correctional education must focus on more than basic skills instruction; it must include vocational training and counselling for inmates to ensure their successful re-integration into society. A coordinated system is necessary to support students from prison to the street and to give former inmates access to general adult and substance abuse education following their release.

According to NALLD, various theories imply that individuals with learning disabilities are more susceptible to committing crimes by the very characteristics of being learning disabled. Informal lessons learned by NALLD, therefore, are that correctional educators must:

- be provided with adequate training to encourage the intake process to incorporate learning disabilities screening procedures early on;
- understand learning disabilities and their characteristics;
- apply screening and learning style inventories to improve practice;

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[62] *Correctional Education Programs For Adults With Learning Disabilities.* (National Adult Literacy and Learning Disabilities Centre, Fall 1996).

- understand the differences between screening and formal assessment;
- use effective instructional practices;
- use strategies training so students can learn how to learn, think, and solve problems on their own;
- understand and use high and low technologies whenever possible;
- recognize the self-esteem and social skills issues of these adults and provide ways to foster development in these areas;
- accommodate learners by teaching students how to work around things they cannot do and to maximize their strengths;
- collaborate with professionals of adult education, literacy, and learning disabilities to continue to strengthen their ability to help adults with suspected or diagnosed learning disabilities;
- create a safe learning environment where the student is able to deal with his or her insecurities and take the necessary risks without fear of humiliation or ridicule.

In the U.S., standards address the issue of teaching inmates with learning disabilities and are designed to support the intent of current legislation. Among the standards are provisions for a system of incentives to entice inmates with learning disabilities into education programs; initial screening for all inmates which can determine the presence of a suspected learning disability; development of individual program plans for setting educational goals and objectives; regular evaluations of the student's progress; and the availability of non-print learning materials and special classroom accommodations. In addition, NALLD has learned that educating attorneys, judges, probation officers, district attorneys, and other prison personnel would be beneficial. Lessons learned from the formal evaluation of prison literacy programs are found in Section 6.

5.1.3.5. Literacy for francophone minorities

In a joint initiative of the Institut canadien de l'éducation des adultes (ICEA), the Regroupement des groupes populaires d'alphabétisation du Québec (RGPAQ) and the Fédération des francophones hors Québec (FFHQ), a study was undertaken to profile literacy levels among francophone Canadians.[63] From IALS, it has been concluded that minority francophone

populations are older and less well educated, and have lower literacy skills than their anglophone neighbours. Programs have been recommended that will provide for 'refrancization' or language recovery, i.e., the process of linguistic and cultural re-appropriation as an intrinsic aspect of literacy training in French in minority communities.

5.1.3.6. Literacy for persons with disabilities

In some cases, special interventions are created for target populations that are designated equity-seeking groups. For example, in Nova Scotia, the Society of Deaf and Hard of Hearing[64] provides part-time and full-time deaf literacy programs in Nova Scotia. Begun in 1995, programs provide literacy upgrading to deaf adults who are unable to access other local literacy programs due to the communication barrier. A planned evaluation will cover such things as methodology for recruitment and screening applicants, curriculum, assessment, tools, student and teacher materials, instructors and co-ordinators, location of classes, structure and duration of courses, and relevancy of the programs to the needs of the learners and the community. The evaluation will provide concrete recommendations to ensure that the programs continue to meet the learners' needs in all areas, including relevance to other training and employment.

5.1.4. Advocacy aimed at literacy for citizenship

Recognizing that many people take literacy for granted, many interventions have been undertaken to (1) promote the value of literacy to all, (2) draw attention to the problems associated with adult illiteracy, and (3) advocate for those who are disenfranchised by lack of literacy skills.

5.1.4.1. Literacy for all

At the national level, an example of advocacy to address employers is the ABC CANADA Literacy Foundation, created in 1990 by a group of business people to raise awareness about literacy and to get the private sector actively involved in supporting literacy. Two of its three

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[63] *Literacy And Literacy Training Of Francophone Minority Groups In Canada.* (National Literacy Secretariat, 1997).

[64] *Deaf Literacy Upgrading Programs Evaluation.* (Society of Deaf and Hard of Hearing Nova Scotians, 1997).

main activities are the National Literacy Awareness Program –the LEARN campaign -- and support to community literacy organizations.[65] The LEARN campaign is a national, multimedia outreach effort designed to link potential learners with literacy providers. Because ABC CANADA believes that Canadians have yet to be convinced that action must be taken, ABC CANADA has developed a partnership with the Canadian Advertising Foundation to create awareness of literacy issues through national print, radio, and television advertising. And because community literacy organizations survive on very limited resources and are often short of money, people, and materials, ABC provides customized ads free of charge, produces ABC Canada publications, acts as a broker between business and literacy organizations, raises funds for literacy programs, and provides planning and technical assistance to NALD (National Adult Literacy Database) to keep track of adult literacy programs, services, and activities across Canada.

In Quebec, the LEARN campaign was examined for its effectiveness in recruiting students and tutors.[66] Introduced in 1994 to reach adults unaware of literacy services, the media campaign began in English with a series of TV, radio, magazine and newspaper ads as well as posters and outdoor ads. A French campaign followed. The tag line of all English ads is "Look in your yellow pages under LEARN". Literacy Partners of Quebec (LPQ) acts as a referral service. Issues raised by the study included the need for encouraging callers after the initial contact; the place of ESL in literacy; standards of recruitment for tutors and tutor support; and prevention, as evidenced by the number of parents who call for help for their children. The informal lessons learned in this assessment are that:

- promoting and sustaining a positive climate for learning requires a collaborative approach and an openness to new ideas and partnerships;
- a follow-up call should be made by the operator of the LEARN line no more than 2 months after the initial call to find out if the caller pursued services to the next level;
- advertisement campaigns should be more specifically targeted to students;
- individual service providers should remain in close contacts with their tutors;
- teaching materials should be provided to tutors by service providers;
- tutors should not be required to pay for training or materials;

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[65] *Literacy Is Everybody's Business.* (ABC CANADA, 1993).
[66] *Increasing Awareness For Successful Outcomes.* (Aaron, 1997).

- the various literacy councils should utilize a more stringent screening process when considering people as tutors;
- media campaigns utilized to attract tutors should be targeted to the type of tutors the organization is seeking;
- a 1-800 number should be established to streamline the referral process.

The Literacy Partners of Quebec consider the LEARN line literacy referral service to be excellent, with callers getting the information they needed in a proficient and useful manner. An examination of the overall LEARN campaign revealed the following.[67] Canadians between 16-44 are dramatically over-represented among callers to literacy groups. Canadians more than 45 years old are dramatically under-represented among callers to literacy groups. Although 55% of Canadians without high school diplomas are more than 45 years of age, only 12% of LEARN callers are in this age group. The fewer years of education, the less likely they will be to call literacy groups. Women with some secondary education make 10% fewer calls than expected. In urban areas, women call 9% less often than expected, and in rural areas, 2% more often. Based on an IALS-LEARN comparison, ABC Canada has concluded that a number of demographic groups are not being reached in proportion to their literacy needs.

5.1.4.2. Literacy for the least advantaged

Among the least advantaged in contemporary society are offenders, members of the designated equity-seeking groups, children and adults living in poverty, unemployed youth and seniors. As an example of literacy advocacy for the least advantaged, the John Howard Society (JHS) has consistently worked on behalf of offenders and ex-offenders. The strong positive correlation between illiteracy and crime is well-known. According to the JHS, the average education level of newly admitted offenders is grade 7. In 1994-95, 70% of newly admitted offenders tested below a grade 8 level in language and math; 86% tested below grade 10. JHS in different parts of Canada estimate that about 68% of offenders have limited literacy skills.

According to the JHS, literacy problems can limit access to justice and the courts can be accused of systemic discrimination against people with low literacy skills. For example, failure

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[67] *Are We Meeting Canadian Literacy Needs? A Demographic Comparison Of IALS And LEARN Research Respondents.* (ABC Canada, 1997).

to respond appropriately to someone with low literacy skills can reduce court efficiency and effectiveness. Problems for justice can result when literacy difficulties are not taken into account; and when people do not understand the court system, they lose faith in the process. Literacy awareness by court officials can contribute to crime prevention and potentially to reduced court caseloads. For the JHS, the advocacy solutions are straight-forward; JHS has learned that it is essential to:

1. enhance public confidence by increasing the public's understanding of procedures and decisions made in courts; strengthening client respect for their lawyers through improved communication between lawyers and their clients; preventing miscarriage of justice which can result when accused, witnesses or jurors do not understand the procedures, documents or statements which make up the court processes; and responding more effectively to the increasing numbers of accused who are appearing in court without legal representation; and
2. protect the rights of people with low literacy skills by identifying literacy problems and barriers for the accused, at each stage of the process, for victims and witnesses, and for the jurors; reducing the barriers presented by literacy demands; arranging for support services; and recommending literacy training as part of a rehabilitative sentence.

As their contribution to the solution, the JHS has developed a handbook called *Literacy and the Courts – Protecting the Right to Understand.*[68] The purpose of this publication is to assist lawyers, judges, police, court staff and others working in the criminal justice system to improve their awareness and understanding of the needs of justice system users, particularly those with limited literacy skills; and to improve the effectiveness of justice system communication with users. This booklet explains how literacy awareness and links with literacy organizations can help criminal justice systems officials to save time and money; to avoid unnecessary public and media criticism; to reduce miscarriages of justice; and to strengthen public and client confidence in the criminal justice system. With this approach, the JHS advocates on behalf both of those who are "functionally illiterate" and "legal illiterate."

As well, reacting to recent studies indicating a low level of awareness among workers in the justice and human services systems about the literacy levels and needs of those who come into contact with the criminal justice system, the JHS constructed a tool called the Justice Literacy

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[68] *Literacy And The Courts – Protecting The Right To Understand.* (John Howard Society of Canada, 1996).

Indicator. [69] It has been successfully constructed and field-tested as a valid and reliable literacy indicator for the criminal justice and human resources systems, and is an effective testing device to determine reading level in relationship to a justice-related vocabulary. According to the JHS, it can be used proactively in recommendations for sentencing, community service or probation to address on-going literacy needs of the offender with potential to break into the vicious cycle of crime. The informal lessons learned by the JHS are that the Justice Literacy Indicator can increase the understanding of the literacy issues among members of the criminal justice community; promote the JHS as an agency that provides products and services which address the literacy needs of inmates in a cost-effective manner; and provide a conceptual outline for a program of community education.

5.1.4.3. Political action

A particular type of intervention has been advocacy on behalf of disadvantaged adults and in favour of political action. Among the advocacy organizations seeking political action is the Movement for Canadian Literacy (MCL) which advocates on behalf of learners and practitioners in adult literacy. MCL is a national, non-profit, registered charitable organization representing provincial/territorial literacy coalitions, organizations, individuals in every province and territory. It has been working since 1977 towards the goal of a literate Canada, specifically to work towards continued awareness of the problem; to do research and develop partnerships that will shape the political will to create policies and programs; and to work toward the prevention of illiteracy.[70] In 1994, in a brief to the Standing Committee on Human Resources Development studying social security reform, MCL pointed out that the 42% of the adult population with inadequate reading skills risk being shut out of the new, high-skilled jobs of the future; that literacy is a fundamental human right; and that illiteracy, persistent unemployment, child poverty and high dropout rates in schools were all issues that were fundamentally related. MCL recommended the following solutions.

- A national vision entailing a complete, integrated system that provides support to learners at every stage of their development.
- A focus on prevention, which involves a solid foundation for lifelong learning.

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[69] *Justice Literacy Assessment And Awareness - Final Report.* (John Howard Society of Saskatchewan, 1998).

[70] *Annual Report.* (Movement for Canadian Literacy, 1994).

- The expansion of the concept of literacy as a series of basic skills prerequisite for the kind of skills necessary for virtually all jobs in today's economy.
- A transcendence of standard distinctions between education and training.
- Federal leadership for a national strategy.
- A commitment of 15% of the HRD training budget to literacy upgrading.
- An increase in 'Literacy Corps' program funding and inclusion of adults over 25.
- A restoration of full funding to basic literacy programming in federal prisons.
- Increased support for Aboriginal literacy programs.
- Minimum five-year funding for literacy programs.
- Increased training for literacy workers.
- The creation of a Canadian Literacy Act based on principles of universality, quality standards, accessibility, learner-centredness and recognition of prior learning.

A different type of intervention with the same goals has been public consciousness raising led by people in prominent positions. For example, Mac Harb, a Member of Parliament from Ottawa, has organized an annual Literacy Forum on Parliament Hill on International Literacy Day ever since ILY. The recommendations coming from the 1993 Literacy Forum[71] were that:

1. special problem areas in literacy should be defined and special objectives set for literacy training;
2. all segments of society must be involved in setting standards that will be required for functional literacy;
3. institutions involved in implementing National Literacy Standards should be community organizations as well as school boards;
4. public awareness can be raised, thereby increasing parents' involvement in their children's education, stressing the importance of literacy by business and media, creating a national literacy awareness campaign, and eliminating the social stigma that goes with the problem of illiteracy.

Other advocacy organizations that have attempted political consciousness raising have included the National Anti-Poverty Organization (NAPO), the Canadian Labour Congress (CLC), and the Canadian Congress for Learning Opportunities for Women (CCLOW).

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[71] *Literacy Report.* (Harb, 1993)

5.1.4.4. Involving the learner

A special type of advocacy effort has focused on involving learners in the development and delivery of literacy interventions. For example, at Lakeland College in Alberta, Regional Literacy Learner Events are organized by learners to provide mutual support groups and learner recognition.[72] Events and initiatives include motivational speakers, certificates of recognition for volunteers, group contests, performance on local television talk shows, learner testimonials, a motivational video, a learners' advisory committee, a learners' newsletter, theatre games to explore "speaking out," learner conferences and workshops for, e.g., self-esteem and money management. Lessons learned, through formal evaluation about the involvement of learners, are set out later in Section 6.

In the early 1990s, the Movement for Canadian Literacy (MCL) set up a Learners Advisory Network. MCL and other organizations recognized that adults who are working to improve their literacy skills are in an excellent position to advise governments, businesses, unions, educational organizations and other groups on how to communicate and work with Canadians whose literacy and numeracy skills are weak. They also recognized that learners should have a voice in the decisions that affect their life and learning.

5.1.4.5. Reducing literacy demands

In recognition of the dual problem of low literacy skills and high literacy demands, efforts have been made by some to address the problem of unnecessarily difficult written materials. For example, the federal government has instituted plain language guidelines, intended to ensure that the level of difficulty does not prohibit understanding of written materials issued by many government departments. NLS promotes the concept of clear writing, and many agencies and businesses have picked up on the concept.

MCL's Strategic Plan includes playing a role in the promotion of plain language as a way of addressing literacy barriers and promoting learning. Important information is often communicated in ways that do not work for people who do not read well. Information and

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[72] *Regional Literacy Learner Events.* (Brennan, 1991) .

services from social agencies dealing with education, employment, parenting, health, legal services, housing, crime prevention, volunteer work, etc., often do not reach those who need them the most. Business leaders, as well, need to understand that it is in their interests to ensure good service to the almost 50% of their customers who have reading and writing problems. In early 1997, MCL's Learners Committee decided to provide an advisory service to help organizations reach Canadians with low literacy skills. The Committee was consulted by the Consumers' Association of Canada (CAC) concerning Food Tips CAC was developing in partnership with organizations such as the Heart and Stroke Foundation, the Nutrition Institute and the Canadian Dietetic Association for use by members of the Canadian Council of Grocery Distributors as well as by literacy programs (as a teaching tool). The Committee was also consulted by the Canadian Public Health Association's National Literacy and Health Program for assistance in developing its Plain Language and Clear Verbal Communication Training Package. Work was also done with staff at Elections Canada to review a draft booklet on voting procedures design for literacy and ESL students, and people with intellectual disabilities. Committee members edited the text for plain language and provided suggested rewording to the staff at Elections Canada. The Committee's successful experience with these projects provided the 'seed' of the Learners Advisory Network -- it became clear that the Committee's essential strength and energy had to do with the experience and expertise its members are able and willing to bring to bear on various practical problems related to communicating and working with people with low literacy skills.

5.2. Interventions Within The Context Of Literacy For Work

In the context of literacy for participation in the economy and industrial development, interventions aimed at solving the literacy-related problems have clustered around (1) macro policies and research to reinforce the need for workforce change and skill upgrading for competitiveness in the global economy; (2) workplace literacy programs developed by unions and/or employers, with teachers, tutors, and/or technology, in specific work sites or industry-wide; (3) workforce literacy programs developed by the formal education system or community-based agencies to provide learning and support programs to individuals; (4) public relations campaigns to reinforce the need to consider the human costs of unemployment and underemployment.

5.2.1. Research aimed at literacy for work

By far, the greatest adult literacy intervention has been research aimed at studying workplace and workforce literacy. The following are examples of notable research endeavours that have not constituted formal evaluation for purposes of this report – i.e., are not included in Section 6.

In the U.S., workplace literacy research has been conducted by Hinck[73] who pointed out that, in 1989, the basic skill gap was becoming an issue of growing American concern. In the early 1990s, re-engineering, downsizing, the age of information and technology, teams and teamwork, lean production were all pushing skill level requirements higher; and in 1996, information had become the primary commodity, and knowledge the element of greatest monetary value. In 1997, a survey of workforce basic skills revealed that 88% of manufacturers are having difficulty finding capable workers; 60% of the workforce have serious shortcomings in basic math skills; 55% of the workforce have deficiencies in writing and comprehension skills; 48% of workers lack the ability to read and translate drawings, diagrams and flow charts; and more than two-thirds of the employers report having difficulty improving productivity (37%) and upgrading technology (36%) due to employee skill deficiencies. Hinck reported that *quality at the source depended on basic skills at the source and rework caused by math errors was enormously costly. Employers couldn't afford the cost of accidents caused by poor reading and comprehension skills…The costs of illiteracy to an organization are huge. Many of the costs are hidden and difficult to estimate, such as the costs of lost leadership and lost ideas. Of all the deadly wastes, the waste of lost talent is the most costly to an organization.* As a solution, Hinck recommended implementing an 'improve reading skills' program focusing on reading for meaning instead of identifying words, understanding the emotional side of illiteracy, creating a safe learning environment at the workplace, and building on internal and external partnerships. According to Hinck, *basic skills programs were positively viewed at all locations as win/win efforts, benefiting not only the company but also individual employees on a very personal basis. Morale and trust improved in the workplace, and employees participated more fully and assumed greater ownership in the problem solving process. Teams and teamwork thrived, and productivity, quality, and safety improved. Where once we heard only silence, now we heard the sounds of leadership, confidence, risk taking, and hope. We heard the sounds of employees prepared for a bright future in the age of information and technology.*

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[73] *Building Workforce Basic Skills For The 21st Century*. (Hinck, 1998).

Similar studies have been conducted, for example, at the provincial level in Canada. In 1998, the Workplace Education Manitoba Steering Committee reported on a study[74] that involved interviews with 78 companies/employers from the six emerging economic sectors of health care products, environment, aerospace, agri-food products, tourism, and information and telecommunications. The study found that:

- few employers had an in-depth understanding of basic skills and their impact on the workforce;
- they voiced dissatisfaction with the basic skill levels of potential employees, particularly those recently graduated from universities, high schools, and community colleges;
- companies would assume some responsibility for training;
- changes in the workplace appear to be the biggest motivator for initiating training;
- basic skill outcomes are largely perceived in isolation and not as significantly contributing to company success;
- 40% of those interviewed felt the government had some responsibility for basic skills training;
- to small businesses, the costs of setting up and delivering training, and the lack of compensation for lost production were impediments for initiating basic skills training;
- in sectors of job specialization, there was greater emphasis on training in general, but in other sectors, there was a belief that it is easier to structure the company and its processes around lack of skill rather that to train workers.

As well, studies have been conducted at the municipal level. In 1993, a study by Nutter[75] revealed that municipal governments are experiencing some difficulties maintaining a workforce whose members are not adept with new technology and complex information systems because of lack of basic literacy skills. Nutter reviewed eight municipalities and noted that they used four methods of literacy training: Laubach Literacy of Canada – Workplace Skills Training based on one to one peer tutoring; Basic Education for Skills Training; Grade Equivalency Diploma; and Vancouver Municipal Workplace Language Program. The study found that, as outcomes of Municipal Workplace Programs, health and safety regulations were learned and understood; morale and efficiency were increased; flexibility and adaptability were developed;

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[74] Reported in *The Bottom Line* (Westnet - Western Canada Workplace Essential Skills Training Network, January 1998).

[75] *Literacy Initiatives In Canadian Municipalities.* (Nutter, 1993)

potential for promotion of employees was increased; communication skills were improved; plain language was promoted in written and verbal communications; and individual self-confidence was improved and enhanced.

Finally, studies are conducted at the industry level. For example, Doran[76] studied the extent of the need for basic skills training in the grocery product manufacturing sector and defined the means of providing training. Doran determined that there is a consensus between management and employees about the impact of workplace changes. Increased competition, introduction of new technology, rationalization and emphasis on lower cost production has affected employees. Changes in skill requirements have increased demands for reading and writing. Fear of job loss has increased among employees. Employers want increased responsibility in decision-making, problem-solving, and feedback regarding production from employees. Increased productivity demands have created stress. According to Doran, industry organizations state that they are spending more time and resources on training to respond to these changes.

- Companies have identified basic skills training as a priority, but most do not have a training program being planned.
- Joint worker/management training committees are reporting positive results but workers would like more involvement on the development and decisions regarding access to the programs.
- Many workers are very positive about the increase in training.
- Companies are placing high priorities on training in TQM/continuous improvement, computer skills and health and safety.
- There is a consensus between workers and management that reading and writing skills need to be upgraded now and that more emphasis in this area will be needed in the future.
- Companies need employees with stronger skills in communications, teamwork, decision-making and problem-solving.

Workers and management of companies who have implemented programs reported positive results.

- Companies reported increased employee productivity, increased participation in the workplace, improved skills, greater receptivity to training, and a higher degree of self-confidence.

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[76] *Canadian Grocery Producers Joint Human Resources Committee – Project Partnership The Basic Skills Training Survey.* (Doran, 1995).

- The programs have improved teamwork, job ownership, employee morale and self-esteem.
- Success is based on joint worker/management involvement in planning and delivery (majority felt training should be offered during work hours).
- Barriers that arose were to do with scheduling programs around shifts, and funding.

A different kind of industry-level research is being conducted by HRDC, which launched the Essential Skills Research Project[77] in 1994. The underlying premises were that the workforce was lacking basic skills and this problem impacted current job performance, the possibilities of future increases in productivity and competitiveness, flexibility in adapting to changes in technology or in the organization of work and the necessary foundation for future skills enhancement. Basic skills were defined as enabling skills: problem-solving, reading, numeracy, writing, oral communication, information technology, working with others and continuous learning. The purpose of the research project is to produce a basic skill requirements profile for each lower-skill entry-level occupation, reflecting the actual requirements of the Canadian workplace; identify the common core of basic skills required across all lower-skill entry-level occupations; and identify blocks of additional sets of skills required for various types of occupations, such as entry-level clerical positions or entry-level blue collar jobs. It is intended that this information will be used by employers, trainers, curriculum developers, counsellors, occupational standards developers and individuals wanting to assess their skills. This research provides an itemized set of essential skill requirements by industry, and many industries have been profiled.

In a multi-party workplace literacy consultation[78] hosted by the NLS in 1997, recent additional funding for the NLS had created an opportunity to focus on significant projects that would make a difference in the area of workplace literacy. The participants agreed that the following needs were being addressed: the impact of workplace education, data regarding impacts on employees, new technologies and tools, connections between family literacy and workplace literacy, understanding of the economic and social impacts, the Essential Skills Research Project, and worker delivery of training. However, the following needs were yet to be met:

- increasing data regarding the impact for employers;

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[77] *Essential Skills Research Project.* (HRDC, 1994).
[78] *Consultation On Workplace Literacy.* (National Literacy Secretariat, 1997).

- outcome measures and accountability frameworks;
- increasing resources for small business access;
- transparent links between workforce development, family literacy – holistic continuum;
- practical linkage of practitioners;
- quality standards form consumers' view to make informed choices and marketing;
- approaches based on technological changes;
- promoting successful Canadian models, stories;
- recognizing literacy as part of training and daily business; and
- addressing barriers to learning transfer.

5.2.2. Policies aimed at literacy for work

One type of policy intervention aimed at literacy for work has been to develop and support workplace literacy programs by various stakeholder groups: business, labour, government and/or partnerships. Johnston[79] has provided a snapshot of the evolution and concerns of labour initiatives from 1986 to 1994. According to Johnston, labour deals with the individual as a worker, a parent, a community member and a citizen; therefore, there is tension between the demand for basic skills as narrowly related to job skills and the broader vision of basic skills or literacy as a tool for empowerment. Concerns raised by the Canadian Labour Congress (CLC) include the idea that training does not create jobs and needs to be combined with employment creation policy to be effective; and concerns about promoting training while also making major cutbacks to the public education institutions that could effectively deliver such training. The impetus for labour-based literacy programs has come from local and provincial levels of Canadian unions. CLC and Canadian Federation of Labour (CFL) have many related programs including BEST, WEST, and EAST; programs that are delivered to a given group of workers at one workplace. Teaching models in many programs are based on a worker-centred approach, which allows program participants to determine the content of programs, according to their individual and collective needs. In many programs employers and worker participants share the cost of their lost time. Johnston provides the following concerns and lessons learned from the point of view of organized labour. Some were concerned that literacy would be marginalized in the process of all the reorganization in the training and education area. Others were concerned

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[79] *Labour-Initiated Literacy Programs In Canada.* (Johnson, 1994).

that NLS should become more involved in other federal training and education initiatives of HRD in order to ensure that a broader approach to literacy would not be lost to a narrow, exclusively job-related approach. It was concluded that there is a lack of information or an overview of labour-based literacy programs.

At the AFL-CIO Human Resources Development Institute in the U.S., Sarmiento and Kay have advocated strongly for worker-centred learning[80] as a policy issue. They assert that union-sponsored education or training programs that include basic literacy skills can help achieve many of labour's basic work objectives: protecting member employment security, increasing job advancement opportunities, and advancing safety and health in the workplace. According to Sarmiento and Kay, unions should provide these programs because unions are to assist the worker in many areas; members may be more comfortable in programs that are not identified with supervisors; employer involvement may confuse the evaluation process; communication is more effective among members; they know the workers situation better; they know how to involve learners and participation will be higher if it is endorsed by the union. The characteristics of 'worker-centred learning' that unions have created as an approach to workplace literacy are as follows.

- Worker-centred learning builds on what workers already know.
- Worker-centred learning addresses the needs of the whole person.
- Workers and their unions are active in developing and planning these programs.
- Decision-making is a participatory process.
- Workers have equal access to programs in their workplace.
- Curriculum content and program structure reflect the diverse learning styles and needs of adult workers.
- Workers are involved in helping to design tests or assessments.
- Classroom records are confidential.
- Literacy programs may be integrated into a larger strategy for responding to anticipated changes in the workplace.

In their handbook, the AFL-CIO sets out nine steps to designing a worker-centred program and other ways to facilitate adult workplace literacy in a union environment including assisting workers in identifying their own educational goals; taking stock of existing training in the

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[80] *Worker-Centered Learning: A Union Guide To Workplace Literacy.* (Sarmiento and Kay, 1990).

workplace; connecting members with local schools; alerting educators to members' interests and needs; negotiating special programs with school and community organizations; helping workers follow through on their goals; organizing volunteers to help one another; and establishing a support services network.

Another type of policy intervention is to delineate and encourage best practice in workplace/workforce literacy education or training. Sarmiento and Kay have established good practice guidelines for worker-centred programs from the union perspective. From an educator's orientation, Taylor[81] suggests that good practice in workplace education include:

- a worker-centred program orientation;
- program evaluation which includes participants' satisfaction, impact of the program on growth of the individual, improvement of work-related tasks and increase in general knowledge; as well as variation in the evaluation processes;
- fair administration of the program, different strategies to overcome learning problems in the classroom;
- professional development for those who are delivering the instruction;
- incorporation of the principles of adult education: valuing the experience of the learners, using material that is appropriate to adults in the workplace, building on the knowledge of the learners, treating the learners as adults, recognizing that people learn from each other, using on-going evaluation, recognizing that adults have a variety of responsibilities and time commitments

Employers and/or equity-seeking groups might add other elements to this list, e.g., taken from the national training standards (CLFDB, 1995).

At the federal government level, adult literacy policy has been largely related to human resources development and training. An analysis of trends in federal government training and literacy initiatives from 1966 to 1993 revealed that, before the 1990s, the demand for new skills was addressed by an increase in immigration; government training activities fell short of the scope of effort being recommended; and training was viewed as a expenditure that required containment as opposed to an investment that would yield dividends over the long term. In the mid-1990s, there was recognition that government must play a facilitative role in stimulating

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[81] *Through The Lens Of A Good Practice Framework : Looking At Our Workplace Education Programs / Les Programmes D'éducation En Milieu De Travail Et Le Respect Des Régles De L'art , Un Examen À La Loupe .* (Taylor, 1998).

private sector training as opposed to being the primary source of training; and the Labour Force Development Strategy was introduced. At the provincial government level, adult literacy became an issue for ministries of education, post-secondary and adult education, employment and economic development. In all the provinces, there was a recognized need to develop new policies and programs to deal with adult literacy as both an education and training challenge. Efforts to address the adult literacy problems were dependent on the orientation or policy context: literacy for personal empowerment and participation in a democratic society, literacy for employment, or literacy for lifelong learning.

An informal policy analysis was provided by various experts in the field of adult literacy while participating in an NLS-sponsored "policy conversation" on workforce literacy.[82] Participants noted that, while the early 1990s focused on awareness-based issues -- definitive information about literacy and the scope of adult literacy in Canada to identifying and responding appropriately to workplace learning needs -- in the mid 1990s strengthening the link between literacy and training had emerged as an issue. The "conversation" focused on two themes: (1) basic skills upgrading as a bridge to on-going skills training and (2) integrating literacy into existing skills training programs. In rating the five previous years, participants said *although a great deal of excellent work has been accomplished, Canada's workplace literacy report card is an indication of the enormous amount of work that remains to be done.* Lessons learned from the 5 years included awareness of the need to:

- develop cooperative partnerships among all the stakeholders; program won't work unless everyone is consulted and involved in design and delivery;
- avoid a single approach; people need to be guided by principles and there are a diversity of ways in which workplace literacy can be operationalized;
- develop strategies to increase sustainability in the long term;
- develop a clear idea of the skills employees need and the skills they have;
- stop using the word "literacy" – it has a stigma attached, and use the word learning;
- develop standards of good practice.

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[82] *Policy Conversation On Workplace/Workforce Literacy.* (NLS, 1995).

Barriers to enhancing workplace literacy were among the following:

- lack of commitment by stakeholders -- reluctance of union leaders to put a high priority on literacy, business resistance to financing skills training generally and workplace literacy specifically, the devaluation felt by workers in need of basic skills upgrading;
- a survival economy that puts the cost of training and literacy as a low priority;
- the control exerted by the Federal Government without enough consultations with stakeholders;
- people doing basic skills without sharing information;
- reaching and mentoring newcomers to the field;
- the idea that literacy takes place in a single workplace and does not serve industries with multiple locations, seasonal work, or remote locations.

The recommended public policy measures to further the vision of workplace literacy fall into the following categories: awareness, training incentives, the NLS mandate, influencing federal policies, and miscellaneous.

1. To increase awareness:
   - Promote basic skills as a component of training.
   - Promote workplace literacy as a positive opportunity as opposed to a deficit-based model.
   - Move literacy awareness into the communication age (e.g., through promotion of media-based models).
   - Market success stories featuring the collaboration of stakeholders and partnerships.
2. To provide training incentives:
   - Provide incentives to business (financial and resources) for training and literacy (e.g. use of expert consultants to assist companies).
   - Provide tax exemptions for organizations that provide in-depth training/learning opportunities and levy a tax for those who don't. Provide tax incentives to encourage corporate investment in these programs.
   - Provide an incentive system for individuals to upgrade.

3. To modify the NLS mandate:

   - Provide funding for sharing advice, ideas and academic studies.
   - Encourage more employer commitment built into receiving public money, i.e., criteria that include all partners, a needs assessment and real evaluation built into the process.
   - Include language training, bring new immigrants into blended workplaces, and encourage dual responsibility.
   - Pay greater attention to best practices guide.
   - Provide adequate direct funding to independent organizations and long-term partnership funding to add stability.
   - Launch a joint project with the U.S. and UK to demonstrate partnership building.

4. To influence federal policy:

   - Develop a national policy for literacy.
   - Amplify discussion of the positioning of training and literacy within the context of broader public policy agenda (social policy and welfare reform), and integration of literacy action into all Federal Government activities.

5. And miscellaneously:

   - Any program should look at potential obstacles and make sure there is universal accessibility.
   - For the workplace of the future, the literacy skills will have to be higher. A responsible employer is not one who can guarantee a job for life, but one who can guarantee employability.
   - There is a need to think in terms of participation and transitions; this promotes the idea that essential skills can give individuals the capacity to cope.
   - Professional development for coordinators, and for tutors, instructors and teachers is needed.
   - It is imperative to push the field of workplace literacy forward by identifying common experiences in a way that enables others to build on them.
   - Public policy seems to be shifting toward economic imperatives for learning. We must continue instead, to focus on the whole worker, the whole community, the whole society.

A full policy analysis – which this report is not – would reveal the extent to which any of these policy recommendations have been achieved.

5.2.3. Programs aimed at workforce and workplace literacy

Between 1988 and 1998, a large number of workplace and workforce literacy programs were developed in a variety of circumstances. For example, in the agricultural sector in Manitoba, workplace literacy programs are being established, with the following characteristics:[83]

- collaboration between employers, unions, employees, educators and government;
- process of inquiry, reflection, cooperation, negotiation and planning;
- curriculum design considering all the needs of the partners, resulting in a plan of action interlaced with reflection and evaluation: content of the lessons revolved around the language and functioning of the workplace;
- constancy of workplace-related content and classroom materials; and
- a formal evaluation of the program concluded such success that the Grain industry expanded the availability of the program and increased their own financial commitment to it.

In the manufacturing sector in Manitoba, workplace literacy programs have been successful for the following reasons.[84] Senior management has been supportive of the development of diverse and individualized learning. Programs have evolved from a workplace focused/group model to one in which the curriculum is developed by accommodating both the individual needs of specific students and the wider workplace goals. A broad definition of literacy has helped to promote program growth. Participants notice that increase of literacy skills have impacted on their improved self-confidence and self-esteem, have created greater interaction in their daily lives with civic awareness and media awareness, and can give a greater sense of company loyalty.

In the Canadian urban transit industry, the Ottawa-Carleton Regional Transit Commission initiated a core job competency training program at OC Transpo in Ottawa. According to Monro,[85] the Canadian urban transit industry was characterized by operations dependent on

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[83] *Exemplary Practice In Manitoba – Models Of Quality In Literacy Programming – Urban Rural Northern Workplace*. (Literacy and Continuing Education, Manitoba Education and Training, 1995).

[84] *Ibid.*

complex systems such as scheduling, routing, booking, timekeeping, the complexity of which has contributed to a strong tendency to hire from within; logistical challenges presented by attempts to address basic skill development, e.g., complex shiftwork systems and a highly itinerant workforce; and skills needs which have been heightened by fundamental industry changes and have impacted on job performance requirements. Monro, in arguing for this program, states: *In the Canadian urban transit industry, the Canadian Urban Transit Association in its role of providing training at a national level to transit employees has addressed the issues of personal management and teamwork skills through such programs as Performance and Productivity, Supervision, and Working. However, there has been no comparable intervention in terms of academic skills.* He points out that the need for training in reading, writing, and numeracy skills has never been studied at a national industry level but at OC Transpo, a skill gap has been suggested by a number of indicators.

- Approximately a third of the students in its on-site High School Diploma Program have been shown to need basic skills training and as many as 38% of the workforce have not completed high school.
- Instructors and supervisors continue to experience situations where an employee lacks the basic skills to carry out a task, e.g. follow written directions.
- Internal job competitions often screen out employees on the basis of writing skills or jobs may develop to the point where the requirements are beyond the incumbents' existing capabilities.
- The Ontario Federation of Labour's literacy program, BEST, tested 14 participants and placed them all in categories indicating that they could read and write 'barely or not at all' or 'with difficulty'.

Core Job Competency Training would address these problems by providing for basic skills training through a program offered at a national industry level to transit employees. The design and development at OC Transpo of an instructional system included industry-specific materials using an external instructional developer. It was to: (1) analyze certain key industry jobs and isolate tasks in those jobs relating to reading, writing, and possibly numeracy and computer literacy; (2) use the above tasks to establish a national industry framework; (3) develop a performance-based instructional system including materials; and (4) provide a strategy and system for the marketing and distribution of the materials. Monro asserted that the program benefits would include development of core job competencies in the industry workforce, improvement of present job performance, facilitation of applicants in internal competitions to

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[85] *Core Job Competency Training Program For The Canadian Urban Transit Industry – Project Plan For Analysis, Design, And Development Phases.* (Monro, 1994).

achieve and demonstrate requisite skill levels thus removing barriers to advancement created by formal education requirements; improvement of career advancement opportunities for groups targeted by employment equity policies or legislation; and better preparation of employees in the transit industry to cope effectively with technical, social, legislative, and procedural changes on their jobs and, in general, to foster continuous learning in the workplace. This program was initiated by OC Transpo and builds on the existing High School Diploma Program and its partnership with the Ottawa Board of Education.

Across industries, Laubach Literacy of Canada developed an Industrial Tutoring Project, with site selection according to levels of unemployment, types and sizes of companies, economic conditions and regional characteristics. An assessment of the project[86] revealed:

- no conclusive evidence of the relationship of literacy training to productivity or worker health and safety;
- while the workplace is an effective environment in which to provide literacy training, it is indeterminate whether differing learning environments have an effect on the attainment of results;
- one of the greatest strengths of the project appears to be the quality of the tutors involved : *trained volunteer tutors and the Laubach materials and curriculum contributed to a high degree of satisfaction..*;
- referral service by regional co-ordinators allowed learners to become involved in other literacy training opportunities;
- a wide variety of activities and materials were needed to address variances in learner populations.

Many, many different industries have developed industry-specific training programs, as either labour force preparation or industrial adjustment projects.

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[86] *Industrial Tutoring Project Evaluation (Final Report).* (Hobbs and Associates, 1990).

5.2.4. Advocacy aimed at literacy for work

In the context of literacy for employment and economic prosperity, two types of advocacy interventions have focused on (1) increasing awareness among employers and workers of the importance of basic skills training, and (2) addressing special needs training in the workforce.

5.2.4.1. Increasing awareness

At the national level, a main activity of the ABC Canada Literacy Foundation is the Workplace Literacy Service, because Canadian employers do relatively little in the way of training their employees and only 2% of formal training is for basic literacy skills. ABC provides an advisory service that emphasizes getting commitment, assessing the need and planning. ABC also develops and publishes a variety of materials, which are distributed to educators and others in business, labour, and government.

Also at the national level, advocating for excellence in workplace literacy is the function of a new initiative of the Conference Board of Canada. The Awards for Excellence in Workplace Literacy Program, initiated in 1998, provides recognition for programs that provide basic skills upgrading, workplace education, workplace training and/or raising employability skills.

Advocacy initiatives can be found in various provinces and industries. For example, in 1997, the Alberta Workforce Essential Skills Steering Committee (AWES) was formed, combining business, labour and government representatives to participate in the promotion and development of a highly literate, effective, confident and innovative workforce in Alberta. It will also reinforce the vital role of workforce essential skills by providing increased educational opportunities that will enhance personal growth, career advancement and community involvement.[87]

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[87] *Reported in* The Bottom Line *(Westnet - Western Canada Workplace Essential Skills Training Network, September 1998).*

5.2.4.2. Special learning needs in workplace literacy

In 1995, the National Adult Literacy and Learning Disabilities Center (NALLD) in the U.S. focused a spotlight on adult learning disabilities in the context of workplace literacy.[88] NALLD states that an estimated 30% to 50% of individuals attending basic skills training, job, and workplace literacy programs may have an undiagnosed learning disability. 'Learning Disability' is an umbrella term that encompasses a wide variety of disorders, including disorders in one or more of the basic psychological processes involved in understanding or using spoken or written language. Learning disabilities may be displayed in an inability to effectively listen, think, speak, read, write, spell, or do mathematical calculations -- skills that are used every day in the workplace. Learning disabilities occur over a lifetime; as a result, adults with learning disabilities are present in the workplace and in workplace literacy programs. A picture of literacy demands and practices in the workplace today reveals that:

- the level of difficulty of common forms of workers' materials is at the high school-to-college level (versus newspapers and magazines);
- as workplaces make technological and organizational changes, more and more workers are expected to work with print materials;
- workers are, more often than in the past, expected to be more flexible and able to do each other's jobs; on occasion, they are expected to be able to independently manage unfamiliar information;
- due to the documented phenomenon of learning loss resulting from little literacy practice, the very workers who may need to improve in basic skills are likely to grow less able as time passes;
- to ensure that workers are equipped with marketable skills, our education system must keep abreast of these changes in demands and practices in workplace literacy.

According to Minskoff at NALLD, the lessons that have been learned regarding workplace literacy instruction for adults with reading disabilities comprise the following guidelines.

- Identify the literacy tasks required for the specific job the individual is being trained for or currently holds.
- Involve the student in the process of identifying his/her needs in meeting the reading demands of the vocational training program or job.
- Use the individual's prior knowledge concerning performance of job tasks as the basis of instruction.

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[88] *Linkages – Linking Literacy And Learning Disabilities.* (National Institute for Literacy, 1995).

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- Identify vocabulary pertinent to reading to do tasks, and assess the individual's knowledge of the meaning of the vocabulary. If the word is not understood, teach its meaning first and then teach how to read the word.

- Use the actual reading materials that are used in the vocational training program or on the job.

- Have the individual apply all reading skills already mastered (e.g. phonics, conceptual clues) to the workplace reading task.

Individuals with learning disabilities need accommodations that fit into the learning culture of an organization. According to NALLD, the key is to ensure that employees (1) understand how they process and respond most effectively to information and (2) can associate that unique style with the learning culture of various workplace environments. McFadden at NALLD, lists the key elements for the success of workforce literacy programs.

1. Employees are tutored by other employees within the workplace setting.

2. All tutors complete a pre-service program, as well as participate in on-going in-service training.

3. The learning needs of adults with learning disabilities are firmly in focus.

4. Workers stay in the program long enough to acquire long lasting skills that will help them become independent and commit to long-term goal.

Informal lessons learned about the nature of the learning disabilities (LD) problem in the context of workplace literacy are that:

- literacy skills are now required of the vast majority of workers, and workers with LD may be ill-prepared for the on-going education necessary to get and keep jobs;

- most jobs are requiring higher literacy skills, and individuals with LD need to be better trained if they are to get and keep jobs that will allow economic self-sufficiency;

- adults with LD need to learn how to generalize classroom skills, such as reading, to specific tasks in the workplace;

- as essential element of workplace literacy programs includes a focus on adults with LD;

- a firm knowledge of one's strengths and weaknesses increases the likelihood that the worker will be able to develop skills, be well matched for a job, and require fewer accommodations; and

- adults with LD in the workplace who are aware of the accommodations and modifications they need and are able to disclose this information, increase their opportunities for success in the workplace.

5.3. Interventions Within The Context Of Literacy And Learning

In the context of the teaching and learning of literacy, interventions – research, policies, programs and strategies -- aimed at solving the literacy-related problems have clustered around (1) research to determine the nature of the teaching/learning problem; (2) design and delivery of adult literacy programs by the public and private sector using paid instructors, trained volunteers or learning technologies; and (3) unique programs for individuals with special needs.

5.3.1. Research aimed at literacy teaching and learning

Research in this area includes studies of the uses of various techniques, technologies, and approaches. Most of the research in this area falls into the category of formal evaluation; hence, it is found in Section 6. There are some exceptions, and the following is an example.

An element of delivery that has been studied in a preliminary way is the nature of competencies required by adult literacy instructors. In Australia, the profession was studied at the University of Technology,[89] with the outcome being *a working document which should provide a basis for further refinement as well as a basis for developing competency descriptions for particular contexts of Adult Basic Education practice.* According to this study, the benefits of understanding the competencies of adult literacy instructors are in: raising morale by articulating more clearly the range and variety of things that ABE practitioners do well; aiding the development of career paths; targeting gaps in professional development; providing a starting point for developing more specific competencies for specific contexts; and providing support to lobby for professional development funding. There are apparent advantages of adopting competency standards (CS) which are informal lessons learned for the field.

1. Maintenance of professional standards. CS provide explicit statements of what people need to be able to do to practice successfully as professionals. Both entry and progress within the profession are able to be based on more objective and valid criteria than currently exists.

2. Basis for Professional Development. CS help universities plan initial teacher education courses and aid in planning continuing education courses and professional development, and individuals in planning their career paths.

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[89] *The Adult Basic Education Profession And Competence – Promoting Best Practice.* (Scheeres, Gonczi, Hager, and Morely-Warner, 1993).

From this study, the competencies of adult basic educators in Australia in 1993 were as follows.

1. Regarding adult learning and teaching approaches and practices, the ability to:

   - apply knowledge of the theories of language and language learning and teaching to develop adult literacy and numeracy skills; mathematics learning and teaching to develop adult numeracy skills; and learning, including learning relevant to adults in any ABE situation; and

   - use a variety of learning and teaching strategies to pursue literacy and numeracy goals for personal, social, educational and vocational purposes.

2. Regarding selection of placement of students, the ability to:

   - interview, assess, place or refer students;

   - balance the requirements of government and organization policies with the learning needs of individuals;

   - use a documentation system which records interviews and placement or referral outcomes to meet the government/organization/student requirements.

3. Regarding the management of learning situations, the ability to:

   - use knowledge of curriculum theories and curriculum documents to develop and implement a program/curriculum compatible with individual, group and program needs;

   - manage time, space and resources to maximize educational resources; and

   - adapt curriculum in the light of changing circumstances and changing student needs.

4. Regarding the monitoring of learning, the ability to:

   - use knowledge of current theories to select and evaluate appropriate assessment methods;

   - modify students' programs as a result of continual monitoring;

   - document students' progress in meaningful ways;

   - continually reflect on and adjust own practice.

5. Regarding evaluation of programs, the ability to:

   - examine existing models and incorporate appropriate evaluation strategies, and use the evaluation of courses for revision, planning and development;

   - report on program effectiveness.

6. Regarding community communication and consultation, the ability to:
   - raise awareness, consult and negotiate on relevant issues;
   - represent ABE both within the teacher's workplace and in the community; and
   - plan and implement ABE programs.
7. Regarding professional development and training, the ability to:
   - be informed about current issues, policies and theoretical debates;
   - be actively involved in continuing professional development;
   - make a contribution to the field; and
   - maximize the contribution of volunteers.

This study concluded that *Adult Basic Education practitioners combine knowledge of theories (of learning, language, mathematics and curriculum), resources, socio-political issues, skills and strategies (of learning, teaching, critical reflection, collaboration, negotiation, conflict resolution), and attributes (of flexibility, sense of humour, supportiveness, patience, sensitivity, respect, commitment) to carry out their numerous roles in a diverse range of contexts.*

5.3.2. Policies aimed at teaching and learning

Policies aimed at ensuring quality adult literacy programs are bolstered by a number of interventions/strategies aimed at (1) delivering literacy programming through provincial education and training ministries, (2) establishing and encouraging good practice in programming, and (3) providing support to literacy workers. The following are samples.

5.3.2.1. Provincial literacy policies

While federal government programs supported research, partnership building, materials development and advocacy work related to adult literacy, the provincial governments have established policies and programs to organize and deliver literacy instruction and advocacy. For the most part, policies are aimed at remediation; however, sometimes provincial policy includes an aspect of prevention.[90] For illustrative purposes, three provincial examples follow: New Brunswick, Prince Edward Island and Alberta.

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[90] *Prévention de L'analphabétisme À L'éducation des Adultes : État de Situation et Réflexion.* (Roy, Tremblay et Mastriani, 1996) .

In 1986, New Brunswick faced a 23.9% "illiteracy" rate, rising as high as 42% in certain portions of the population. There were a number of literacy programs in place, but not all the training was credited, drop-out rates went as high as 50% and training was not available to a large portion of the population, particularly those in rural, isolated areas. The Minister of State for Literacy in Canada was appointed in New Brunswick, and this commenced the government working with partners in communities and the private sector to achieve a literate province. Through new organization of efforts from different government departments, new roles for government, private sector and communities, and innovations in the delivery of adult education *Literacy New Brunswick Inc.*, a non-profit, charitable organization was created to orchestrate the province's initiative. This group provided a focus for private sector, community and volunteer efforts. Its Board of Directors, drawn from the private sector brought a cost efficient, results-orientated approach. The Board provided advice, secured funding from a wide variety of sources, managed and funded community-based literacy and workplace literacy initiatives. Hundreds of companies, foundations, individuals, communities, volunteers, service and literacy groups have joined. The reported results have been:[91]

- nearly 500 Community Academic Services Programs (CASPs) have been established since June 1991. This exceeded the initial goal of 100 CASPs in four years.
- 10,500 learning opportunities have been created.
- 400 private sector partnerships have been developed.
- The drop out rate for CASP is 7% versus 50% for traditional programs.
- New Brunswick's illiteracy rate stands at 19.5% down from 23.9% a few years ago.
- Other partnerships have also developed including funding and delivery partnerships and the spin-off products they produce.
- Unlike CASP, which relies on the private sector for funding, another initiative, LIWI – Learning in the Workplace, is supported by participating companies and the Canada/New Brunswick COOPERATION Agreement on Entrepreneurship and Human Resource Development.

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[91] *Literacy New Brunswick Inc.* (New Brunswick's Literacy Initiative, 1995).

Similarly, in Prince Edward Island,[92] low literacy skills are a complex problem for 40% of the adult population who can read only simple material, and in fact, 17% of whom cannot read at all. The economic and social cost of low literacy levels are high. Low literacy levels hamper businesses ability to train employees, make use of new, advanced skills, introduce new technology and remain competitive. Low literacy levels restrict the Province's ability to attract financial investment needed for economic growth and development, and affect personal income, health, safety, child development, and social, cultural and civic activity. In the province, the issues are how to ensure sufficient and sustainable resources, how to significantly broaden the level of community commitment to achieve a fully literate province, and how to integrate the Strategy for Adult Literacy/Education with those of Health and Community services, Education and Economic Development. Implementation of policy by the Office of Higher Education, Training and Adult Learning has required partnerships involving adult learners, communities, post secondary institutions, public sector, volunteer organizations, adult educators and governments in order to achieve the following objectives:

1. formalizing the partnerships;
2. cooperation with other departments and groups, establishing a structured adult literacy/education system, with the leadership and coordination roles of these partners clearly defined, to provide the full range of opportunities for adult learners and to address the needs identified by learners, educators and communities;
3. development of a funding model which ensures a continuum of adult literacy/education problems and programs that are affordable and sustainable for all adult learners;
4. ensuring a full range of programs are available and responsive to the needs of all adult learners to determine the means whereby adult literacy/education is accessible to adults who are currently excluded or may be excluded as a result of changes to the Employment Insurance Act;
5. development of a process for adult educator certification that will be adopted by Government and be enforced provincially to recognize adult education as a distinct profession with specific requirements of the practitioner, to ensure the pursuit of excellence in the application of the profession, and to recognize the contribution of adult literacy/education as a positive and powerful force in economic development;
6. facilitation of a continuum of learning in a community learning environment as part of an adult learning system to respond to the needs of the community, to develop healthy and

[92] *Tough Challenges: Great Rewards – A Strategy For Adult Literacy/Education In Prince Edward Island.* (Office of Higher Education, Training and Adult Learning, 1996).

economically sustainable communities, to include a community education philosophy that provides active learning environments, to give both the adult learners and the supporting community a greater stake in the success of the literacy initiatives, and to increase the impact on public awareness, acceptance and commitment;

7. establishment of standards and a process for the evaluation of adult literacy/education programs to determine the effectiveness of adult literacy/education programs including: relevance to the learners' needs, cost effectiveness, quality of curriculum, outcomes for learners;
8. facilitating the establishment of adult learner assessment services to ensure an individualized assessment process is accessible and timely for adult learners.

An Implementation Plan has been set out for development, implementation, evaluation and outcome measurement of this initiative.

In Alberta, an Adult Development Reform Initiative has been recently undertaken. According to Alberta Advanced Education and Career Development, [93]

> *generally, adults with low levels of education (typically less than a grade 12 education) and limited employability skills and/or limited language skills have engaged in long-term academic upgrading programs to improve skill levels. The emphasis on such programs was on academic skills and, to a lesser extent, occupational or employability skills. Reforms being made will provide adult learners with an integrated program of applied academic, employability, and occupation-specific knowledge and skills to enable them to find work or embark on a course of post-secondary education. The reform will also maximize the return on investment of public resources in adult programming.*

This adult development initiative complements the existing provision of literacy through a network of community-based volunteer tutoring programs, classroom programs at community colleges and school boards, and workplace literacy initiatives.

5.3.2.2. Good practice policies

A different type of policy intervention in the delivery of literacy instruction centres on articulating and encouraging good practice in the field. Various statements have been developed. For example, in BC, the *ABE Volunteer Tutor Program Evaluation Kit*[94] includes good practice

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[93] *Education Initiatives In Canada, 1998: A Report From The Provinces And Territories.* (Council of Ministers of Education, Canada, 1998).

[94] *Adult Literacy Volunteer Tutor Program Evaluation Kit.* (Thomas, 1989).

statements regarding the program philosophy, planning, community involvement and linkages, awareness activities (recruitment, public relations, advocacy), access, facilities and equipment, administration, participation, staff training and development, tutor training, volunteer support services, learner assessment, learner support services, instructional strategies, materials, program evaluation, and funding.

A similar policy development intervention centres on curriculum standards. In PEI, Holland College has begun to establish standards and a process for the evaluation of adult literacy/education programs in the Atlantic region. The term "standards" was defined to include: curriculum, outcomes, credentials of instructors and facilities. The "Atlantic Provinces Inter-provincial Standards" for curriculum which were authorized for implementation by the Ministers of Education in the four Atlantic Provinces in March 1996 used the Newfoundland ABE curriculum as the benchmark. Instructors and facilitators piloting the curriculum are all enrolled in the Adult Education Diploma program.

A third policy intervention centres on quality assurance for literacy programs. In Ontario, Core Quality Standards (CQS)[95] for literacy programs are directed at the program mission, community focus, program commitment to learners, learner commitment to program, respect for learners, learner-centred approaches and methods, access and equity, learning assessment, instruction time, ratio of learners to instructors, learning materials, practitioner training, outreach, support services, organizational links, program accountability, administrative accountability, and program evaluation. When the Ottawa Board of Education (OBE) evaluated its Recognition of Adult Learning Project,[96] it determined that the factors contributing to the success of the project included the timeliness of the provincial outcomes statements which provided a frame of reference upon which to base the tasks. With the CQS in hand, the OBE reported "learning" new reporting procedures and new kinds of statistics to measure learning; further integration of an outcomes-based learning model into the program; and improved ability to advise and provide training and resources for literacy practitioners implementing the provincial outcomes.

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[95] *Literacy and Basic Skills (LBS) Program - Guidelines.* (Ministry of Education and Training, Literacy Ontario, 1998).

[96] *Recognition Of Adult Learning Project 1995-1996 - Final Report.* (Ottawa Board of Education, 1996).

A fourth approach to good practice policies is to understand and define success in adult literacy programs. According to the Ministry of Education in Quebec,[97] literacy training is an educational domain that requires, more so than others, a clear definition of what constitutes success. In Québec, the educational community questions itself on and is mobilizing around the issue of educational success and success in literacy training. Current conceptions of success include academic success, educational success and social success, with different indicators for each and especially for adult literacy.

- Academic success covers only a part of educational success, e.g., attainment of a diploma opens the door to higher education. Indicators of success include results at exams, grade average, levels of repeated grades and diploma granting. Although the philosophy of adult education is quite different from school teaching, securing a diploma continued to be the main goal of literacy training. However, it is far more than a preparatory phase to higher education.
- Educational success is broader than academic success. It refers to the whole process of education: personal growth and continuous enhancement, optimal and harmonious development of individuals' abilities -- intellectual, physical, emotional and relational. This process is on-going, interactive and in constant evolution. Success indicators relate to broad skills acquisition that lead to optimal social integration. Literacy training reaches into all of the human dimensions; therefore, success indicators are beyond those relating to reading and writing whether they refer to computer literacy, critical thinking, the building of awareness and interest for history, geography, arts and functional situations.
- Social success comprises both academic and educational success. Social success is a very broad and very subjective concept. Definitions vary according to the position occupied by various social groups and their participation in power structure/plays, but most always relates to social and family origin, professional status, revenue and type of employment, psychological and emotional stability, health etc. Further factors - social, political and economic - condition and sometimes determine one's social success. Academic success does not necessarily lead to social success. Literacy is clearly but one aspect leading to social success. As a UNESCO caricature shows "Before literacy training I was poor, miserable and illiterate. Now I'm just poor and miserable."

In Quebec, the factors for success of literacy programs include andragogical factors; factors related to the organizational framework of the training project; factors related to the environment

[97] *Réussite En Alphabétisation : Réflexions Et État De Situation.* (Désilets et Roy, 1995) .

of government(s); factors related to the social, cultural and economic environment; factors related to the life style/milieu of adult learners; and factors related to the adults themselves. The current challenge is in developing appropriate success indicators and measurement/evaluation tools. These are six criteria currently used by school boards: transfer of learning, attainment of notional goals in French and math, perceptions of the adult in terms of satisfaction and clear expression of motivation, perceptions of the teaching staff, the attainment of the adult learner's goals as formulated initially, and evaluation of the development of the learner's personality. To achieve success, the Ministry in Quebec recommends (1) integration of functional and notional aspects of the training; (2) clarity and precision regarding the adult training project; (3) definition of competencies; and (4) transfers of learning. According to Roy,[98] although everyone agrees that it is very difficult to come to any rationalization on the factors of success, be it only because none of the evaluation tools uses the same language, suggestions are made as to possible criteria for success: objectives that are clear, realistic, consigned into a logbook or using specialized software, and attained; regular follow-up throughout the training period; additional supports to ensure regular follow-up, from registration to end of training; regularly revised training objectives; summative evaluation of academic skills; and follow-up questionnaire one year after completion of training. Failures in training may be due to training objectives that are not adapted to the needs of the adult learner; orientation towards non-appropriate programs. In the case of failures, Roy suggests time-out to allow the learner to review the learning situation; re-orientation for the learner to more appropriate training/learning situations; re-defining the training project; propose other venues: volunteering, short-term employment, course in knowing oneself.

5.3.2.3. Policies to support literacy workers

In recognition of the fact that those who deliver literacy programs need support, some policies have been established to provide training and networking supports. Throughout Canada, literacy networks and education providers have been funded, to greater and lesser extents, to provide professional development for literacy workers. For example, in Alberta, resources have been provided to the Literacy co-ordinators of Alberta through a Regional Resource People Project.[99] The project addresses such issues as evaluation processes; rural versus urban

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[98] *Départs Et Abandons En Alphabétisation : Résultats De La Consultation.* (Roy, 1993).
[99] *Literacy Coordinators Of Alberta (LCA) Regional Resource People Project.* (Fahy, 1993).

needs for professional development; non-participation; alternate delivery methods for training; training; certification; a resource library; and strategic planning. In Newfoundland and Labrador, a distance education course for literacy providers was developed by TETRA (Telemedecine and Educational Technology Resources Agency).[100] The course was deemed to be widely applicable; and all participants expressed highly positive opinions about the value of the course to their tutoring. Evaluators recommend that the course be offered on a regular basis.

5.3.2.4. Policy analysis

Analysis of policies to deliver literacy education and training to adults is sketchy, and not very positive. For example, in a review of adult literacy and new technologies in the U.S., Meenan-Kunz[101] concluded:

> *We cannot approach the question of technology in adult literacy programs out of context-without a greater understanding of the complexities of programs that comprise the adult literacy 'system'. And as we all know, it is not a system at all. It is a multiple of programs with a multitude of funding sources, pledging to serve multiple clients. The difficulties of setting policy for, planning for technology adaptation, staff training, and curricula design to meet the byzantium needs of the adult literacy 'system' are staggering.*

She concluded that the problems of existing adult literacy services include a shortage of funding, funding from multiple sources (often with different objectives and target populations), a broad mix of programs and learners, decentralization, an absence of teacher training, and a lack of appeal for commercial technology interests. She recommended solutions in which U.S. congressional action could assist with building a base of technology, improving the system of literacy programs, and experimenting with new alternatives.

Some analysis of provincial literacy policies has been conducted. For example, the Ontario Literacy Coalition (OLC), [102] committed to improving levels of literacy among adults in Ontario, believes that the strategy most likely to result in increased adult literacy levels is to make adult literacy programs available, accessible, and effective. In an examination of issues and research related to assessing the effectiveness of adult literacy programs, OLC observes that adult literacy policy in Ontario is not conducive to meeting adult literacy goals. Ziegler noted that, as

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[100] *Distance Education Course For Literacy Providers Evaluation (Final Report).* (Kennedy and Kettle, 1991).

[101] *A Review Of Adult Literacy And New Technologies: Tools For A Lifetime.* (Meenan-Kunz, 1996).

[102] *The Effectiveness Of Adult Literacy Education: A Review Of Issues And Literature Related To Outcome-Based Evaluation Of Literacy Programs.* (Ziegler, 1996).

deficit reduction is a priority for both provincial and federal levels of government, service providers that rely on public funding face significant challenges. Survival of government-funded programs is likely to relate to the extent to which a program or service is viewed as befitting the role of government, the extent to which a program or service targets a need which is recognized by government and is seen as being tightly linked to the government's agenda, and/or the extent to which the government believes that the program or service being delivered actually addresses and ultimately reduces the need, as this provincial government views that need. In Ontario, the situation is that the government currently believes that there is a serious adult literacy problem there, and that this problem is linked to the government's commitments to reduce the deficit, stimulate the economy and get people back to work. However, OLC is concerned that the provincial government may be focusing too narrowly on connections between literacy and labour force development issues; and the long term survival for literacy programs is related to challenges associated with demonstrating the effectiveness of adult literacy programs.

5.3.3. Programs to deliver literacy instruction

Adult literacy programs can and are delivered in a variety of forms: (1) by trained volunteers; (2) by paid instructors in formal education settings; (3) through learning technologies; and (4) by either volunteers or paid staff in community-based programs. The following are examples of different approaches for the delivery of literacy instruction.

5.3.3.1. Volunteer tutoring programs

Since 1930, Laubach Literacy of Canada (LLC) has been organizing and delivering literacy tutoring with trained volunteers. LLC is a national non-profit volunteer organization committed to raising the literacy level of Canadian society. Trained tutors work with individuals to improve their basic and functional skills in reading, writing, speaking, listening, numeracy, and other life skills. Programs are adapted to the goals of the student. Some special programs include: Each One Teach One – youth and adults together becoming readers; Family Literacy; Peer Youth Tutor Clubs; and Summer Reading for Fun. The tutor training and teaching methods are now used in over 300 countries. In Canada, in 1996-97 there were almost 9,000 trained tutors, 8,500 students, and 165 community-based literacy councils.

5.3.3.2. Formal instructional programs

Throughout Canada, some school boards and community colleges have developed adult literacy programs. They typically attempt to mirror other programs, with established curricula, qualified instructors, entry and exit exams, fixed schedules; however, many are more flexible. Although the general populace may think of illiteracy as the total inability to read and write, the problem of illiteracy in industrialized countries is not at this level. Very few Canadian adults are totally illiterate; however, very many do not have the advanced literacy skills required to function fully in the context of an industrialized economic and social environment. What these adults require is not basic literacy instruction but opportunities for remedial basic education: educational programming in basic academic, life and employment skills, from the level of basic literacy to the equivalent of high school completion. Like basic education for youth, adult literacy is the foundation for adults to participate in further education and lifelong learning. While the programs, then, are more appropriately called Adult Basic Education, the term adult literacy has been used because of provincial jurisdiction over education but potential federal program funding until very recently.

5.3.3.3. Community-based programs

Community-based programs delivering literacy education and training are as diverse as the communities and individual needs to which they respond. This sampling of literacy programs in Manitoba[103] serves to illustrate variety and the following as elements of good practice as identified by Manitoba Education and Training (MET): appropriate instructional space, support from the community for the program, a strong instructor, on-going recruitment efforts, use of volunteers, and a commitment to staff development.

In urban Manitoba, *Open Doors* in Winnipeg is a community-based program in a school setting and the following assessment is provided by MET. A community needs assessment was conducted and students were identified as being interested prior to the beginning of the program. Teachers understand the nature and goals of the program and they support the adult education initiative; adult students do not feel embarrassed about their literacy needs and regularly recruit new students. An advantage of the school program is that students who are

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[103] *Exemplary Practice In Manitoba – Models Of Quality In Literacy Programming – Urban Rural Northern Workplace.* (Literacy and Continuing Education, Manitoba Education and Training, 1995).

parents of the children in the school now have a better relationship with the school. The program is considered successful because the Literacy Working Group has taken a strong role in supporting and developing the program; it recruits volunteers and has a fund-raising obligation; problems that are identified are addressed; volunteers and paid staff have paid release time for regular meetings and professional development.

In rural Manitoba, the Brandon Friendship Centre hosts a community-based program, also assessed by MET. By participating in formal and informal community, city-wide, and provincial networks, this program is able to share information, coordinate resources and keep abreast of changing needs. Through learner-centred assessment, learners and practitioners collaborate in making decisions about curriculum, fund-raising and program promotion. Recognizing the strengths learners bring to the program has been a key to positive word-of-mouth recruitment. A survey of former learners was completed to ensure that programming was meeting its learners' needs. The program benefits from a strong spirit of partnership between the Friendship Centre and Literacy Working Group. Learner-centred instructional strategies are used, building curriculum in response to identified learner and community interests and concerns. Responsibility is taken for the long-term development of this program in relation to the community of which it is part. Stakeholders reinforce commitment to improving program quality by providing instructional staff with resources, time and encouragement to participate in program improvement efforts.

In Northern Manitoba, the Flin Flon Friendship Centre hosts a community- based program in a library with the following characteristics, according to MET. The Community is strongly involved. Promotion and outreach continues on a regular basis and volunteers are active on the Working Group, as tutors in the program and in promotion, recruitment and fund-raising. The program is articulated with the local school division as students can attain credit towards high school diplomas. Literacy provision is imaginative and varied, allowing students flexibility in terms of instructional methods, setting and time of classes. This program reflects the important community role that volunteers play in the operation of the program. The current realities of a changing technological society are reflected in the focus on program expansion in both training for the practitioners and teaching for the students.

In Winnipeg, Transcona Literacy is a volunteer program in a community centre. The program keeps a highly accessible space convenient to tutors and students. Student groups are developed, and small group instruction and delivery of short courses takes place. Although the

majority of volunteers are tutors, members of the local community have contributed to the program on a one-off basis by speaking to groups of students. The program demonstrates the on-going commitment to the volunteer model and professional development of those volunteers. The program has demonstrated the range of opportunities that both tutors and student need from the expansion of the library facilities to the development of groups for interested students.

In rural Manitoba, the Pembina Valley Language Education Association provides a community-based program in multi-centres. Programs utilize cooperation, effective management, innovative funding arrangement and sound instructional philosophy. Efforts have had a profound impact on the personal goals, the employment opportunities, the educational goals and the quality of life of its participants. Links between part-time programming, full-time programming and workplace programs are strong. Based on learner feedback, the number of hours of instruction have increased and access to computers for more learners was implemented. There is an increased emphasis on community outreach and publicity.

5.3.3.4. Programs based on learning technologies

Working together, the National Center on Adult Literacy, PBS (TV), and other partners have developed LiteracyLink, a state-of-the-art use of technology to help adult learners pursue high school completion in the U.S..[104] LiteracyLink is designed to serve more than 40 million Americans who require basic skills instruction. As an extensible broadcast and on-line lifelong learning system, it incorporates the latest Internet technologies, video technologies, and computer technologies. It has two goals:

1. to increase the access of adults to learning opportunities that will enable them to obtain their high school diplomas; and

2. to improve the quality of instruction available to individuals and adult literacy providers nation-wide through enhanced resources and expanded staff development.

An external evaluation is to be conducted on LiteracyLink to (1) assist developers in creating effective products, (2) help the funder assess the impact of their investment, (3) contribute to a better understanding of how technology innovations such as this can augment more traditional modes of educational delivery, (4) better understand the type of student who profits most from

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[104] *NCAL, PBS, And KET Innovative Partnership Using State-Of-The-Art Technology To Help Adult Learners Pursue High School Diploma And GED Certificate.* (National Center on Adult Literacy, 1997).

an innovative approach like this, and (5) learn about the factors (setting, delivery devices, scheduling, and instructor support) that help maximize its impact. The main focus of the evaluation will be testing learners' ability to access the various materials, assessing student comfort with the media products, and testing teachers' ability to access and willingness to use the resources available. Research will also be conducted to determine the differences in literacy skill acquisition between those adult learners who use the on-line materials and practice exams and those who do not; determine if the use of on-line diagnostics make an overall difference in learning literacy skills; review differences in the effective use of the on-line resources that are attributable to particular major instructional environments, such as library workstations, the workplace, or classroom instruction; and determine the relationship of on-line resources and video to learning.

5.3.4. Strategies and tools aimed at literacy and learning

In terms of the delivery of literacy education and training, a variety of specific tools and strategies have been developed, such as interventions or strategies for meeting special needs, or perhaps tools for evaluating products and programs.

5.3.4.1. Special teaching strategies

As research demonstrates how adults learn and how reading should be taught, it is no surprise that specialized methods for teaching literacy to adults have been developed. For example, Sticht[105] promotes a model called Functional Context Education: an approach to education in which the teaching of basic language, intellectual and cognitive skills and the subject matter of schools, including education and training programs for out-of-school youths and adults, are integrated into the functional contexts that engage people in the world outside the schoolroom, including the world of work.

5.3.4.2. Links to regular teachers of reading

To some extent, teachers in general and reading teachers in particular were made more cognizant of their connection to adult literacy, with a view to preventive strategies. For example,

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[105] *Functional Context Education (FCE), Making Learning Relevant.* (Sticht, 1997).

the Canadian Teachers' Federation collected teachers' perspectives on the nature and extent of literacy problems within their classes, on the factors affecting their students' literacy development, and on those actions, strategies and resources that are effective in promoting the literacy of students having difficulties. Some members of the International Reading Association (IRA) realized that they had a role to fill.[106] In 1986, a group of IRA professionals interested in adult literacy developed a set of guidelines: (1) awareness, designed to encourage local councils to become aware of what adult literacy was and to share this awareness with other IRA members; (2) collaboration, designed to encourage local councils to collaborate and consult with adult literacy organizations, many of which are volunteer in nature and might welcome enhanced communication; and (3) technical assistance, designed to encourage reading teachers to share their expertise by tutoring, providing workshops, and becoming consultants to volunteer literacy programs. According to Richardson, results of these activities indicated an initial interest by local councils in adult literacy; however, from 1989 to 1996 the number of activities decreased to less than half. She says: *the good news is that the percentage of activities in technical assistance has increased over the years, indicating that reading specialists are providing more expertise to adult literacy providers by tutoring, presenting workshops, and consulting. The bad news is that we seem to be spending less time on creating awareness and collaborating with adult literacy providers.* In order to increase awareness and collaboration, Richardson recommends that reading professionals make adult literacy the topic of a meeting, include some information about adult literacy in a newsletter to reading specialists, consider honouring an adult literacy program or group in their area, contact a local adult literacy volunteer agency and see what they need. She concludes: *The skeleton is back in the closet, not only for the nation, but also for reading teachers. Encouragement to participate in adult literacy activities at a local level is waning. Undoubtedly interest in adult literacy will peak again, if the past several decades are any indicator of future trends.*

5.3.4.3. Choosing technologies for adult learning

One such tool is designed to help choose and use technologies. In 1998, Stites produced a guide for choosing and using technology for adult learning, under the auspices of the NCAL.[107]

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[106] *Is There A Skeleton In The Reading Specialist's Closet? Adult Literacy As A Fad.* (Richardson, 1997).

[107] *Assessing Lifelong Learning Technology (ALL-Tech): A Guide For Choosing And Using Technology For Adult Learning.* (Stites, 1998).

ALL-Tech was introduced as an assessment framework that adult educators could use to evaluate current uses of technology and to plan more effective applications of technology in support of lifelong learning. Its development was based on the premises that within the adult basic education system, current applications of technology do not take full advantage of the potential of technology to optimize adult learning; and using technology to address problems of unequal access and to raise the quality of adult learning opportunities will take more than increasing the supply of hardware, software and telecommunications equipment; quality and effectiveness of technology use are also major considerations. This assessment framework defines indicators of engaged learning and high performance technology and provides instructions for using these indicators to assess the extent to which technology and technology-enhanced programs complement learning. It presents a framework for evaluating technology as a tool for learning, accounting for the following.

- The nature of adult learning and the potential roles that technology can play in helping create learning environments.
- Revisions of traditional (K-12) indicators of engaged learning and high performance technology. There are seven traditional variables in effective learning and teaching: (1) learners engaged in authentic and multidisciplinary tasks; (2) assessments based on performance of real tasks; (3) learners participation in interactive modes of instruction; (4) learners working collaboratively; (5) learners grouped heterogeneously; (6) the instructor as facilitator in learning; and (7) learning through exploration. To these seven, ALL-Tech adds four new indicators, i.e., that learning technologies are transformative, build on life experiences, reward, and accommodate learning differences.
- Factors that may facilitate or obstruct the effective application of technology to adult learning are: relatively high cost of technology and the poorly funded state of adult education; the training and professional development needs of adult educators; general adult resistance to the new; and the impact of the information revolution on life and work in the 21st century.

According to Bixler and Askov,[108] effective instructional technology will empower learners and help them assume responsibility for their own learning. These are the characteristics that guide the software developed at the Institute for Study of Adult Literacy.

1. Interaction: adults learn through active engagement.

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[108] *Characteristics Of Effective Instructional Technologies.* (Brixler and Askov, 1996).

2. Feedback: feedback is necessary and should be non-judgmental and private.

3. Learner Control: learner-controlled and individualized instructional programs allow stopping and re-entry at any time. Learner controlled accessories are also valuable: navigational tools, built in dictionary. Learners should be able to comment on any difficulties they experienced, aspects of the lesson they enjoyed, etc.

4. Directions and help: should be visible and easily accessible.

5. Consistency: explicit organization increases memorability of the new material.

6. Organization: summary screens, short instructional segments, record keeping system. Adults have a sense of accomplishment when instruction is divided into modules, units and sub-units.

7. Graphics: simple but appealing graphics assist in learning.

8. Assessment and record keeping: built-in diagnostic and mastery tests are useful when learners move from one class to another.

9. Customization: for instruction and assessment.

10. Instructor's Manual: a detailed, graphically orientated manual is essential. It should be well-written in non-technical language.

5.3.4.4. Conducting program evaluation

Program evaluation has been an acknowledged short-coming in the field of adult literacy. In aid of evaluation, many tools and procedures have been developed, for example:

1. a method for collaborative ethnographic evaluation[109] from the University of British Columbia;

2. a dossier of evaluation instruments for literacy programmes[110] including baseline surveys, management information systems, learner assessment systems, effects of literacy reports, radio listening report forms, from the German Foundation for International Development;

3. from UNESCO,[111] a handbook to guide in the evaluation planning, design and implementation and as well, the utilization of evaluation results, including detailed information on the definitions, context, objectives and functions of evaluation; paradigms

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[109] *Suspended In A Web Of Relationships: Collaborative Ethnographic Evaluation.* (Tom, Fingeret, et al., 1994).

[110] *Dossier Evaluation Instruments For Literacy Programmes, A Contribution To The International Literacy Year 1990.* (Müller and Dietrich, 1989).

[111] *Evaluating "Literacy For Development" Projects, Programs And Campaigns.* (Bhola, 1990).

and models of evaluation; processes for evaluation planning and management and management information systems; and, distinctions to make between evaluation in the naturalistic mode and the rationalistic mode;

4. from the Ontario Literacy Coalition,[112] a book to help understand why one does evaluation and planning; how to begin the process; who should participate; tools and techniques; how to take action; how to document and report evaluation;

5. de l'Association de formation professionnelle des adultes (AFPA),[113] un outil d'évaluation mettant d'abord en contexte l'illettrisme et l'évaluation et fournissant des outils pour évaluer l'écrit et la lecture;

6. du Bureau de l'alphabétisation du Manitoba[114] produit un document qui touche les tests standardisés et les tests critériels, l'évaluation structurée et non-structurée, et l'application des tests standardisés à des élèves des programmes d'éducation en milieu de travail;

7. from the Canadian Association of Municipal Administrators (CAMA) and the Workplace Education Centre of ABC Canada,[115] a guide for planning a collaborative evaluation for municipal workplace literacy programs;

8. a manual for evaluation of on-going learner assessment in school board adult basic literacy programs produced by the North York Board of Education,[116] including tips on planning the evaluation, gathering data and analysing the data;

9. a workplace education evaluation checklist from the U.S. Center on Education and Work;[117]

10. a handbook for workplace development planners from the ABC Foundation.[118]

5.3.4.5. Specific delivery strategies

Research and improved practice over time has led to considerable understanding about how adults learn and how to best teach adult literacy skills. Fingeret and Drennon[119] point out the differences between traditional literacy training and optimum literacy training. Traditional

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[112] *Program Evaluation and Planning Book.* (Breen, 1991).
[113] *Illettrisme Et Évaluation : Ouvrons Le Débat.* (Association de formation professionnelle des adultes, 1987).
[114] *Évaluation Des Élèves Des Programmes D'éducation De Base Et D'alphabétisation Des Adultes .* (Bureau de l'alphabétisation du Manitoba, 1992).
[115] *A Guide For Planning A Collaborative Evaluation For Municipal Workplace Literacy Programs.* (Canadian Association of Municipal Administrators and Workplace Education Centre, ABC Canada, 1998) .
[116] *How Do We Measure Up ? A Manual For Evaluation Of Ongoing Learner Assessment In School Board Adult Basic Literacy Programs.* (Hanks, 1994).
[117] *Workplace Education Evaluation Checklist : A Tool For Assessing And Improving Performance.* (Manly, 1994).

literacy training is focused on reading: phonics analysis, syllabication, main idea identification; 'meaning' is in the text (rather than constructing meaning through interaction with texts and the social world) therefore emphasis is on coding, decoding as instructional goals. Traditional instruction focuses on words and how words build sentences and paragraphs. According to Fingeret and Drennon, literacy training is really about becoming a literate person in specific social and cultural contexts. It is best viewed through an ideological model which respects the social nature of literacy and the political nature of action. Optimum literacy training places the adult learners at the centre of the process, follows the choices that learners make as they engage in literacy education, and poses that adult's inner resources as central to change.

Drawing on these distinctions and implications for program delivery, they recommend that:

1. practitioners be asked to become more reflective about their philosophy of education and their values, and to view literacy education as a partnership with their students;

2. adult literacy program staff and volunteers be equipped to help learners with the complex issues that arise in relation to change;

3. where possible, adult literacy programs should make counselling services available to students in a variety of formats, i.e., peer counsellors, counsellor as resource for teachers;

4. adults in literacy programs need opportunities to talk with each other about their shame, their literacy, and their feelings, in order to develop trusting relationships with other students and staff;

5. adult literacy programs should affirms students' identities as problem solvers and help position them as knowledgeable consumers of the services;

6. literacy services advertise more extensively and in a variety of ways, such as using former students to promote the programs and advertising in places where adults are likely to go;

7. participatory approaches to planning and evaluating would bring together various perspectives leading to renewed energy around the program, enhanced learning for everyone, and substantive progress toward change in areas central to students' lives;

8. curriculum be based around problems adult learners face outside the program;

9. programs effectively teach thinking skills and higher-order cognitive abilities;

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[118] *Collaborative Evaluation, A Handbook For Workplace Development Planners.* (Jurmo and Follinsbee, 1994).

[119] *Literacy For Life, Adult Learners, New Practices.* (Fingeret and Drennon, 1997).

10. instruction contribute to transforming students' self-blame particularly when coupled with counselling;

11. ways be developed to support students' engaging in literacy practices in situations that are increasingly public;

12. provision of education in cross-cultural communication;

13. "authentic assessment" that involves reflection on and analysis of a sample of artifacts from literacy practices drawn from many domains in students' lives, i.e., portfolio assessment;

14. policy that supports adults' involvement in programs and offers more class time, more "apprentice" time outside the classroom, and more interaction among adults who engage in a wide range of literacy practices;

15. policy that supports media development of more positive views of adults who want to develop their literacy practices; and

16. policy that encourages an emphasis on literacy's purposes rather than on discreet goals, engaging practitioners and policy makers in developing a shared vision for literacy.

5.4. Summary

This section reviews samples of typical interventions, set out by policy context: literacy for citizenship, for work and for lifelong learning. Interventions have largely taken the form of (1) research with recommendations for action, (2) policy development and implementation, (3) programs for instruction and/or advocacy, and (4) actual strategies or practices. Interventions have been based on the premises that:

- literacy is integral to citizenship in Canada, i.e., the basis of democracy is informed choice, and the basis of informed decision-making is the ability to read and communicate at a level commensurate with contemporary requirements;
- literacy is fundamental to active participation in the workplace; i.e., Canada's continued prosperity is dependent on economic and human resources development, and literacy is fundamental to both; and
- basic and continuing education and training are essential for lifelong learning, and for individual participation in the life and work of the local and global community.

In the context of literacy for personal empowerment and community participation, interventions related to the literacy problems have been clustered around the following concepts: (1) policies to support research, programs and strategies; (2) research to better understand the nature of

the problem; (3) remedial teaching/learning programs offered by volunteer or peer tutors, qualified instructors and (4) advocacy and public education programs to present the positive values of literacy, to reduce literacy requirements where possible and appropriate, and to involve learners in a meaningful way. Fundamental to these interventions is the assumption that individuals with low literacy skill levels have difficulty exercising their rights, roles and responsibilities as citizens in a democratic society. The negative outcomes for individuals and for society can be general problems with self-esteem and inadequate access to equitable participation in the community, and/or specific problems with lawlessness and other socially disruptive behaviours.

- Policy interventions in the context of literacy for citizenship are addressed to the portion of the population that does not actively contribute to the community, and in fact, may draw on community resources for support due to low literacy levels. Macro-level policies have included resourcing research and the development of some specific literacy programs, e.g., volunteer tutoring programs and family literacy; some networks, research, and materials development to support literacy workers; and some public relations to create public awareness and recruit students. In the macro-policy environment in Canada, adult literacy policies in the contexts of both citizenship and employment are implicit largely in the mandate and activities of Human Resources Development Canada. Policies aimed at the delivery of programs and services specific to literacy for lifelong learning are largely within provincial jurisdiction, and examples are provided for each province and territory. Federal policy has enabled the National Literacy Secretariat to support research into the issue of adult literacy, develop literacy pilot projects, support the development of Canadian-made adult literacy materials, and support workplace literacy through workplace learning materials, training of specialized workplace literary practitioners, developing pilot workplace programs and supporting new areas of research. Analysis of policy initiatives reveals the prevalence of a number of myths, some successes and some failures.

- Research projects have been the most obvious intervention aimed at adult literacy. Extensive amounts of research have been directed at understanding the nature and scope of low-level literacy, internationally and in Canada. Working together, Statistics Canada and Human Resources Development Canada have produced the major research projects, and the National Literacy Secretariat (NLS) of HRDC has participated in or funded almost all the adult literacy research that has been undertaken in Canada. A guiding principle of NLS-

funded research is partnerships between researchers, practitioners and learners. In addition to the major 1994 International Adult Literacy Study, various other research studies have been undertaken for policy formation or policy analysis. For example, Jones (1993) helped redefine literacy from a literacy-illiteracy situation to a continuum of skill levels; the U.S. National Institute for Literacy (1995) examined tests and measurements that have been used; the Canadian Home and School and Parent-Teacher Federation researched literacy and parenting.

- Teaching/learning programs – a third type of intervention aimed at literacy for all contexts -- have had either (1) a general focus – open to all (e.g., at a community college or library), or (2) a specific focus (e.g., for special populations like offenders and ex-offenders, the unemployed and marginalized, women or families, francophone minorities, persons with learning and hearing disabilities). This section includes a sample of programs, set out by focus or targeted audience, that are intended to improve literacy skills, increase personal empowerment, and enhance positive community contribution of and by individuals. From them, many informal lessons are learned.

- Recognizing that many people take literacy for granted, a fourth type of intervention has been undertaken to draw attention to the problems associated with adult literacy and/or advocate for those who are disenfranchised by lack of literacy skills. Advocacy interventions have been targeted to (1) promoting the values of literacy for everyone (e.g., the ABC CANADA LEARN campaign); (2) promoting programs for the least advantaged (e.g., by the John Howard Society of Canada); (3) calling for political action (e.g., by the Movement for Canadian Literacy); (4) involving the learners (e.g., by the Learners' Committee of MCL); and (5) reducing literacy demands (e.g., by the Consumers' Association of Canada).

In the context of literacy for participation in the economy and industrial development, interventions aimed at solving literacy-related problems have clustered around (1) macro policies and research to reinforce the need for workforce change and skill upgrading for competitiveness in the global economy; (2) actual workplace literacy teaching/learning programs developed by unions and/or employers, with teachers, tutors, and/or technology, in specific work sites or industry-wide; (3) workforce literacy programs developed by the formal education system or community-based agencies to provide learning and support programs to individuals;

and (4) public relations campaigns to reinforce the need to consider the human costs of unemployment and underemployment.

- By far, the greatest adult literacy intervention has been research aimed at studying workplace and workforce literacy. The costs of illiteracy to an organization are huge. Many of the costs are hidden and difficult to estimate, such as the costs of lost leadership and lost ideas. Numerous examples of American and Canadian studies are reviewed in this report, e.g., the costs of low-level literacy in the U.S. workplace (Hinck, 1998); the view of employers in Manitoba by Workplace Education Manitoba (1998); literacy in workforce of Canadian municipalities (Nutter, 1993); basic skills training needs in Canada's grocery product manufacturing sector (Doran, 1995); and essential skills in various industries (HRDC, 1994). Hinck pointed out that, in 1989, the basic skill gap was becoming an issue of growing American concern. In the early 1990s, re-engineering, downsizing, the age of information and technology, teams and teamwork, lean production were all pushing skill level requirements higher; and in 1996, information had become the primary commodity, and knowledge the element of greatest monetary value. As a solution, Hinck recommended implementing an 'improve reading skills' program focusing on reading for meaning instead of identifying words, understanding the emotional side of low-level literacy, creating a safe learning environment at the workplace, and building on internal and external partnerships. Doran determined that there is a consensus between management and employees about the impact of workplace changes. Increased competition, introduction of new technology, rationalization and emphasis on lower cost production has affected employees. Changes in skill requirements have increased demands for reading and writing. Fear of job loss has increased among employees. From employees, employers want increased responsibility in decision-making, problem-solving, and feedback regarding production. Increased productivity demands have created stress. Workers and management of companies who have implemented programs reported positive results. Nutter found that, as outcomes of Municipal Workplace Programs, health and safety regulations were learned and understood; morale and efficiency were increased; flexibility and adaptability were developed; potential for promotion of employees was increased; communication skills were improved; plain language was promoted in written and verbal communications; and individual self-confidence was improved and enhanced. In a multi-party workplace literacy consultation hosted by the NLS in 1997, the participants agreed that the following needs were being addressed: the impact of workplace education; data regarding impacts on employees; new

technologies and tools; connections between family literacy and workplace literacy; understanding of the economic and social impacts; the Essential Skills Research Project; and worker delivery of training. However, a long list of needs remained to be met, such as: outcome measures and accountability frameworks; increasing resources for small business access; quality standards formulate consumers' views to make informed choices and marketing; approaches based on technological changes; promoting successful Canadian models and stories; and recognizing literacy as part of training and daily business.

- In terms of policies aimed at literacy for work, a small number of interventions are set out: labour initiatives and workforce literacy policies (Johnston, 1994; Sarmiento and Kay, 1990); and best practice policies in workforce literacy (Taylor, 1998). The early 1990s focused on awareness-based issues, i.e., from the scope of adult literacy in Canada to identifying and responding appropriately to workplace learning needs. By the mid 1990s, strengthening the link between literacy and training had emerged as an issue. An informal "workplace literacy policy conversation" focused on two themes: (1) basic skills upgrading as a bridge to on-going skills training and (2) integrating literacy into existing skills training programs. In rating the five intervening years, participants said although a great deal of excellent work has been accomplished, Canada's workplace literacy report card is an indication of the enormous amount of work that remains to be done. Lessons learned from the five years included awareness of the need to develop cooperative partnerships among all the stakeholders; avoid a single approach; develop strategies to increase sustainability in the long term; develop a clear idea of the skills employees need and the skills they have; stop using the word "literacy" – it has a stigma attached, and use the word learning; and develop standards of good practice. Among the barriers to enhancing workplace literacy were the following: lack of commitment by stakeholders, a survival economy that puts the cost of training and literacy as a low priority, and the idea that literacy takes place in a single workplace and does not serve industries with multiple locations, seasonal work, or remote locations. The recommended public policy measures to further the vision of workplace literacy fall into the following categories: increasing awareness, providing training incentives, modifying the NLS mandate, influencing federal policies, and miscellaneous.

- Many different industries have developed industry-specific training programs, as either labour force preparation or industrial adjustment projects. Examples include various

programs sponsored by Manitoba Education and Training, OC Transpo in Ottawa, and Laubach Literacy Industrial Tutoring Project.

- In the context of literacy for employment and economic prosperity, two types of advocacy interventions have focused on (1) increasing awareness among employers and workers of the importance of basic skills training, and (2) addressing special needs training in the workforce. Examples include the Workplace Literacy Service of ABC CANADA, the Awards for Excellence in Workplace Literacy sponsored by the Conference Board of Canada, and various workplace literacy coalitions in and across provinces.

- Special strategies in workplace literacy include addressing the special needs of workers with learning disabilities, potentially a significant number of learners.

In the context of literacy teaching and learning, interventions aimed at solving literacy-related problems have clustered around (1) research to determine the nature of the teaching/learning problem; (2) education and good practice policies for the delivery of literacy instruction; (3) design and delivery of adult literacy programs by the public and private sector using paid instructors, trained volunteers and/or learning technologies; and (4) strategies and tools aimed at literacy and learning.

- Most of the research in this area falls into the category of formal evaluation; hence, it is found in Section 6. There are some exceptions, and the following is an example. An element of delivery that has been studied in a preliminary way is the nature of competencies required by adult literacy instructors. According to an Australian study, Adult Basic Education practitioners combine knowledge of theories, resources, socio-political issues, skills and strategies, and attributes (of flexibility, sense of humour, supportiveness, patience, sensitivity, respect, commitment) to carry out their numerous roles in a diverse range of contexts.

- Policies aimed at ensuring quality adult literacy programs are bolstered by a number of interventions / strategies aimed at (1) delivering literacy programming through provincial education and training ministries; (2) establishing and encouraging good practice in programming; and (3) providing support to literacy workers. This section contains samples centring on provincial literacy initiatives, good practice in the field, curriculum standards,

quality assurance for literacy programs, and understanding and defining success in adult literacy programs. Informal policy analysis reveals some strengths and weaknesses.

- Adult literacy programs have been delivered in a variety of forms, e.g., by trained volunteers in various settings, by paid instructors in formal education settings, through learning technologies, and by either volunteers or paid staff in community-based programs. Examples have been provided, including Laubach Literacy's volunteer program, formal programs offered by community colleges and school boards, community-based programs in Manitoba, and LiteracyLink in the U.S..

- In terms of the delivery of literacy education and training, a variety of specific tools and strategies have been developed, e.g., special teaching strategies, links to regular teachers of reading, choosing technologies for adult learning, conducting program evaluation, and specific delivery strategies to meet special needs like learning disabilities. Some informal lessons can be learned from each strategy and program developed.

In conclusion, numerous interventions have been undertaken – research, policies, programs and practices – aimed at increasing adult literacy skills for all three areas: literacy for citizenship, work and lifelong learning. Those set out in this section, Section 5, serve as examples, with some of the informal lessons learned from research and practice. Section 6 sets out further examples that have been formally evaluated, with the actual lessons learned in interventions aimed at literacy for citizenship, employment and lifelong learning. Section 7, the conclusion, synthesizes the lessons learned in the areas of policy, programs and practices from the formal evaluation studies and research reports.

6. LESSONS LEARNED WITHIN POLICY CONTEXTS

The major focus of this study is the lessons learned from the formal evaluation of adult literacy policies, programs and strategies. Although a very large number of interventions have been undertaken, many have not been formally evaluated. This chapter sets out examples of what has been learned from specific evaluations in all the policy context areas: literacy for citizenship, work and learning. Studies were gathered from a wide number of sources, including an extensive Internet search; and particular assistance was provided by the National Literacy Secretariat, the library at Human Resources Development Canada, the Centre for Literacy of Quebec, and members of the consultative group. The following are studies which met the criteria set out in Section 2. Lessons learned from these formal studies are set out according to intervention type: research and policy analysis, programs, and practices.

6.1. Lessons Learned In The Citizenship Context

Lessons have been learned from the formal evaluation of literacy interventions aimed at adult literacy for active and positive participation in the community and in Canada as a democratic society.

6.1.1. Lessons from policy implementation

Stated and unstated policies have been implemented in support of adult literacy in various contexts. Lessons can be drawn from (1) Canada's national literacy policies, as represented by the mandate and outcomes of the National Literacy Secretariat, (2) international funding policies, and (3) policies directed at special populations, such as the poor, the unemployed, and the disenfranchised.

6.1.1.1. Canada's national literacy "strategy"

For the most part, national policy implementation has been reflected in the activities and outcomes of HRDC, and especially the National Literacy Secretariat. The Secretariat itself was evaluated in 1995,[120] from which the following specific lessons about the national strategy were

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[120] *Evaluation Of The National Literacy Secretariat – Evaluation And Data Development.* (HRDC, 1995).

learned relative to (1) the continued relevance of a federal role in literacy, (2) NLS policies and priorities, (3) NLS partnerships, (4) information dissemination, (5) monitoring, (6) awareness of literacy issues, (7) access to literacy training, (8) development of learning materials, (9) literacy research, and (10) the Plain Language Initiative.

Regarding the continued relevance of a federal role in literacy, the evaluation concluded that there was a demonstrated need for continued federal intervention in literacy. The original rationale for the program -- a large proportion of the nation with inadequate literacy skills -- remained in force, but stakeholders asserted that there was a lot left to accomplish in the area. The program was funding important activities beyond provincial funding for direct instruction, activities such as research, development of learning materials, and coordination of information. NLS also improved access and awareness of literacy, and there was a strong consensus among informants that a federal withdrawal from the literacy field would be 'devastating' and that the infrastructure would crumble.

Regarding NLS policies and priorities, it was determined that the five project types the NLS was mandated to deliver constituted very broad guidelines instead of concrete objectives, and there was not a clear link between the NLS mandate and the project types. This may have been exacerbated by the fact that there was – and is -- no well-defined national policy on literacy. NLS was not proactive in establishing priorities for funding, but in reacting to the proposals it received may not have targeted important areas. In short, literacy issues had not been well defined for the purpose of federal intervention and NLS was viewed as an experiment. The evaluation concluded that *NLS is now in a position to do more than stimulate; it could play a more active role in shaping the agenda and become proactive in identifying new areas of priority. It has not done this yet.*

Regarding NLS partnerships, NLS had been exemplary in its use of partnerships to develop literacy infrastructure in Canada. Partnerships were deemed necessary because they provided the flexibility needed to meet the varied needs of different jurisdictions, organizations, activities and target groups. The flexibility of NLS had allowed the development of appropriate arrangements with each jurisdiction, and provided for direct response to the needs of partners. The program-funded activities were judged to be important by literacy experts, possibly because they were largely ignored by the provinces: research, development of learning materials, and coordination of information between provinces.

The most criticized aspect of NLS was its record of disseminating results. It had had haphazard and negligible involvement in systematic information dissemination. The role had been to encourage partners to share their results, products of projects were placed in the HRDC library and requests that each project submit its products to regional resource centres were made. However, literacy experts claimed that NLS had not done an adequate job in disseminating learning materials or research, and there was too much reliance on the NALD even though they are not the official disseminator for NLS. There was, therefore, a lack of knowledge and coordination between different partners and different regions. Suggestions for improvement included, more work on preventing duplication and a good data base of past projects; more work on distribution of materials; more involvement with projects when they are under way to ensure quality; exploring the feasibility of establishing a national network for resource material and information; sponsoring more regional and national meetings so that information could be shared; publishing of a newsletter highlighting important issues, summarizing key research findings, etc.; and taking on more of a 'superagency' role, operating across departments to improve coordination, consultation and assistance.

There were also shortcomings in monitoring of projects, i.e., activities carried out and procedures put in place to ensure that projects did not duplicate what already existed, that they were progressing as planned and that the work was of reasonable quality. There were no procedures in place to check the projects that NLS funded; staff did not ordinarily monitor a project's progress and seldom checked on the quality or completeness of the final report/product. This was mainly due to the type of funding, e.g., not contributions but grants which do not require any project follow-ups after the funding has been provided. The administrative system (COLMIS) was missing so much data in important fields that the usefulness for monitoring was questionable; information on project type, target group, project activities, and main issue addressed did not exist in the early periods; and there was no information on final products submitted, date submitted, reviewed, etc.

Regarding awareness of literacy issues, there was strong evidence of increased awareness of literacy issues by various sectors of society, much of it attributable to NLS. Few provinces/territories had literacy programs to speak of prior to NLS, except for low-level Adult Basic Education, and few of the literacy coalitions would have existed without NLS funding. Closely related to this, regarding access to literacy training, NLS had been successful in lowering barriers to access such as low self-esteem of learners, lack of past success in school

and lack of awareness. Literacy volunteers, literacy practitioners, and low-literate adults had increased their participation in literacy programs to a great extent since the establishment of NLS. NLS had been successful in augmenting participation in literacy programs, at least for literacy practitioners and low-literate adults; and NLS had helped promote non-traditional learning opportunities and innovative learning models. Funding of projects for minorities (e.g., linguistic, Aboriginal peoples, offenders), and of projects delivering service in unconventional locations (e.g., workplace) had resulted in greater access to literacy. However, certain types of barriers (e.g., lack of daycare, lack of time, and family pressures) were not addressed by almost half the accessibility/outreach projects. Certain target groups (e.g., first generation Canadians, visible minorities, persons with learning and mental disabilities) saw little improvement or even regression in their access to literacy programming since the advent of NLS. There still existed a large mismatch between the numbers of adults with low literacy skills and the small proportion that actually go to literacy programs.

Regarding the development of learning materials, NLS had been responsible for funding a variety of Canadian learning materials. Target groups now had learning materials especially designed for them but due to lack of dissemination, the groups did not gain access. Since NLS did not usually check on the quality of final products, materials have not been closely examined to see if they were good and useful.

Regarding literary research, NLS had stimulated research of literacy issues; however, there was no systematic monitoring of the scope or quality of the academic or applied research funded because no one had followed up on research completed thus far. There was no collation of research findings to facilitate the task and some literacy experts questioned the quality of some the research that has been funded by NLS. There was no requirement for dissemination and NLS did little, if any. Therefore, there was a lack of awareness in the literacy community regarding conducted research and research results, and the implications of this were the possibility of duplication and the loss of opportunity to build on previous work.

Regarding the Plain Language Initiative, a recent survey had found that 75% of Canadians thought that information regarding government services and programs is too difficult to understand. 95% of survey respondents maintained that the Plain Language Initiative should be extended to include the private sector.

6.1.1.2. International funding policies

For the World Bank, the International Literacy Institute conducted an evaluation of the literacy projects and programs in which the Bank had invested.[121] For the World Bank and other international development agencies, literacy is viewed as pivotal to the success of projects aimed at improving the social and economic circumstances for people in all countries – developed and developing. In its funding of national literacy projects, the Bank learned that ambitious national literacy campaigns it had funded in the 1960s to 1980s had shown mixed results; and a new approach was taken. Increasing priority was given to assisting governments to achieve universal primary education as the principle means of making societies literate. Current Bank literacy projects support a range of literacy providers, not just government adult education agencies. Support has been provided through a competitive social funding mechanism to encourage competition, experimentation, and replication of best practices. Five general lessons have been drawn from the World Bank's and other donors' experience to increase the effectiveness of investments in adult education:

1. Literacy instruction is often more successful when it is combined with teaching practical skills.
2. Developing functional literacy often involves teaching basic scientific knowledge and sometimes a knowledge of a language other than the mother tongue.
3. While NGOs are often effective literacy providers, they usually require strengthening to become executing agencies for donor projects.
4. Documenting effective practices requires systematic development of research and other kinds of technical capacity to serve the community of literacy providers.
5. The impact of literacy programs can be improved with better targeting, especially to youths who have been denied the opportunity to complete their studies.

At worst, Canada's adult literacy statistics almost put Canada in the category where these recommendations have immediate applicability. At best, these lessons learned can serve to advise national policy development and implementation.

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[121] *Investing in Adult Literacy: Lessons And Implications.* (Eisemore, Marble, and Crawford, 1998).

6.1.2. Lessons from programs

In the context of literacy for empowerment and positive participation in society, various interventions that have been evaluated include programs for offenders, social assistance recipients, families, and seniors.

6.1.2.1. Programs for offenders

Statistics from the U.S. reveal that 75 to 90% of juvenile offenders have learning disabilities, that up to 50% of adult inmates are functionally illiterate, and that up to 90% of adult inmates are school drop-outs. In their research on prison literacy for the National Center on Adult Literacy in the U.S., Newman, Lewis and Beverstock[122] observed the following.

> *America's more than 1,000,000 people behind bars, more than any other nation and three times as many as the nations of the European Community, most of them illiterate drop-outs from our schools and rejects of our society…It is the problem that most educators do not know about, most politicians do not acknowledge, most corrections professionals are unprepared to deal with and most tax-payers resent having to pay for.*

Their study examined the professional and research literature concerning the state of literacy instruction of adult inmates in correctional institutions in America to address the question: what are the most effective ways to deliver literacy instruction in prisons and in jails? They identified the following issues:

- Existing research can inform practice to the advantage of inmates, prison officials, educators and tax-payers.
- Beyond literacy, correctional education has the potential to yield positive changes in offenders' lives.
- To be rehabilitative, correctional education must be responsive to the particular learning needs of offenders, have content that focuses specifically in changing pro-criminal values, beliefs, and attitudes, and integrate its activities with other correctional treatment initiatives.
- In recent years, assessments of offenders have pointed to a high incidence of learning difficulties.
- Offenders have a different preferred learning style. They favour a hands-on approach rather than the more passive, visual methods practised in schools.

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[122] *Prison Literacy: Implications For Program And Assessment Policy.* (Newman, Lewis, and Beverstock, 1993).

- The development of a specific curriculum that blends basic academic skills with material that stimulates social learning must remain a critical priority.
- Education in most correctional jurisdictions is a 'stand alone' activity, with little interaction with other areas of corrections.
- Corrections-specific training is generally not provided to teachers. They are usually forced to seek professional development in the outside teaching community and are disadvantaged in dealing with prison-specific problems.
- These education programs need to be more closely integrated with programs on social skills, substance abuse, anger management and family violence.

The result of research shows greater literacy is a way out of criminality, and improving literacy is a way of reducing criminal recidivism among the adjudicated. There needs to be a growth in literacy education which (1) includes moral lessons, democratic self rule, "instruction in the humanities, (2) is delivered by means of andragogical instruction, in company with training in a variety of skills to enable the inmate to cope with the personal, sexual, familial, chemical, economic, vocational, and social problems of life. According to these researchers, an ideal program in prison literacy educates broadly; is governed for the sake of the learners; makes prison life more liveable; is cost-effective; improves the quality of life; has a new-reader's library; makes appropriate use of educational technology; and is the right thing to do.

6.1.2.2. Programs for social assistance recipients

In 1997, the Coalition for Brandon Literacy[123] released results of its study of reducing the dependence on social assistance and increasing employability through attention to adult literacy. This study set out to explore the perceptions and realities of a group of literacy workers and students in relation to education and employment, within the context of 'Welfare Reform' taking place in the social assistance systems nationally. The study was based on the realization that the majority of adults enrolled in literacy programs receive some sort of government income assistance. The research employed a holistic approach to this complex issue, examining both systematic and personal barriers, as well as positive education and employment opportunities that exist for students. A combined methodology of focus group interviews and a literature review allowed the research to place the experiences of individuals within the larger

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[123] *Literacy, Welfare And Work – Preliminary Report.* (Smith, 1997),

socio-economic and political context. The research was based on awareness of the links between:

1. literacy and unemployment
    - people with literacy problems have two thirds the income of other Canadians, are twice as likely to be unemployed, and much more likely to receive some form of social assistance;
    - jobs available to lower-literacy adults tend to be the lowest-paid, and the most insecure.
2. literacy, poverty and other barriers to education and employment
    - poverty affects every aspect of a child's mental, physical, and intellectual development, and poor children face a higher chance of growing up undereducated and underemployed;
    - lower-literate adults have barriers to education and employment that continue to make it difficult to break out of poverty, barriers that include lack of appropriate, accessible education and training programs; lack of support systems (including child care, transportation, etc.); poor health and nutrition; inadequate housing; stress; low-self esteem; issues of violence and abuse; addictions, and discrimination based on race, class, gender and ability levels.
3. literacy and employment
    - in the past, people with lower education levels could compete for employment at decent wages and now these jobs are being taken by post secondary graduates who cannot find work in their field;
    - employment rates are often higher than they appear because they do not take into account the number of 'discouraged workers': those who have given up searching for jobs and the underemployed;
    - labour market trend data is often inaccessible and confusing, particularly for low income, low literacy adults.

The findings and general recommendations – the lessons learned – are as follows.

1. Literacy education is a very important factor in realizing employment and alleviating poverty. It also provides important opportunities for growth, both personal and academic. These skills in turn increase students' abilities to find and keep a job and become more self-sufficient.
2. In order to overcome barriers to education and employment, students need sufficient time and support services that, in many cases, are lacking.
3. The relationship between education and work is complex and cannot be dealt with in a reductionist manner (e.g., literacy "equals" work).

4. More information, support services, and other resources are necessary if literacy workers are to help students make the transition from welfare to real work.

5. Literacy workers must engage in on-going, positive dialogue with policy-makers and programs staff within Welfare and Employment Development offices, sharing information and coming to agreement on what is best for the students.

6. Student participation in decision-making is a must: the majority of students in literacy programs demonstrate a strong commitment to learning, a keen understanding of the issues that affect their lives, and a willingness to become involved in making positive choices for themselves and their families.

Further research is being planned.

6.1.2.3. Programs for First Nations

Various interventions have been developed specifically for Aboriginal peoples in both the U.S. and Canada. To evaluate and develop new resources for reaching and teaching Cherokee adults with limited literacy skills, the following program was developed and evaluated.[124] Two teachers provided literacy instruction in eight classes to 110 adults in six primarily rural Oklahoma Cherokee communities. Three new resources were created, field tested and evaluated. The first two were evaluated and disseminated to other tribes at the 1993 National Indian Adult Education Association (NIAEA) Annual Conference. Using inspection and interviews, an external evaluator assessed the three new books, and the program's adequacies and needs during the 1992-93 grant year by comparison to the prior year. The newly-created 'Master Skills Checklist' was found to be an accurate objective indicator of student gains in discrete sequenced literacy skills, and an improved assessment system over the unpopular TABE long-form test (yet not correlated to grade levels). *The Write Way--Book I* and *Community Organizing* were generally rated excellent by staff from diverse Native American cultures attending NIAEA's annual meeting. Both books were considered culturally sensitive. The first teaches the grammatically correct sentence, and had mixed ratings as a motivating resource. The latter presents a participant-centred philosophy. It was rated as especially useful for setting up new, well-attended adult education programs. Major findings from the external evaluation report were the following: (1) unstable program funding created grant limitations; (2) program resources (teachers, facilities, materials) were adequate and there were indications of

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[124] *Demonstration And Documentation Of Strategies, Methodologies, And Tools For Literacy Programs Serving Native Americans.* (NIL, 1995).

program improvements since the prior year; (3) obstacles to participation include need for transportation, child care, eyeglasses, and hearing aids; (4) staff training is needed for using the skills checklist system, and both new teaching materials need refinement; and (5) staff had already been naturally using the newly introduced 'community organizing' approach.

6.1.2.4. Family literacy programs

There have been at least four family literacy program or policy evaluations from which lessons can be learned. First, a study of family literacy programs in Michigan[125] revealed the following.

- Education may play a large part in improving lives of impoverished people; however for those who have dealt with past school failure, many do not see further education as a solution to their problems.
- Successful family literacy programs may be found on a continuum of 'context sensitivity' from didactic (traditional skills and materials) to responsive (accommodation of special needs of the participants, support of parenting skills and job preparation, literacy development and family independence).
- Ideally programs should balance both ends of the continuum. Programs that have become elaborated systems and offer more than just reading and writing instruction appear to be more successful. Issues of access, child care, transportation, community and cultural orientation, personal meaningfulness are also considered.
- The programs that develop without a coherent framework (integration of program goals, instructional practices, assessment methods, staff training and social support) make it difficult to assess the success of existing programs and to assist new programs.

Second, at Kent State University, Padak and Rasinski[126] reviewed research from the various disciplines in which the concept of family literacy is rooted: adult literacy, emergent literacy, child development, and systems analysis. According to Padak and Rasinski, there are benefits for parents, families and society.

- Parents are far more likely to persist in family literacy programs than in other types of adult literacy programs. Those who persist have more opportunity to learn. Attitudes about education improve; the value they perceive in education increases. Reading

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[125] *Characteristics Of Effective Family Literacy Programs In Michigan.* (De Bruin Parecki, Paris and Seidenberg, I996).

[126] *Family Literacy Programs: Who Benefits?* (Padak and Rasinski, 1997).

achievement increases; writing ability improves; and math and science knowledge increases. Knowledge about parenting options and child development increases; for example, parents in one project became more confident about their abilities to foster their children's positive development. Parents are able to enhance their employment status or job satisfaction.

- Families learn to value education. They become more involved in schools, and this leads to better achievement for children. Families become emotionally closer, read more and engage in more literate behaviours at home.
- Society benefits as literacy achievement can in turn break cycles of economic disadvantage. In particular, family literacy programs positively affect several major social problems: nutrition and health problems, low school achievement and high school drop out rates, teen parenting, joblessness and welfare dependency, and social alienation.

Third, to identify the structures, strategies, and approaches of community-based family literacy programs that are most effective in serving hard-to-reach participants, the Association for Community Based Education (ACBE) used its own databases and other organizations' suggestions to identify 23 promising community-based family literacy programs.[127] Telephone interviews with representatives of each program were used to collect additional information. Fourteen programs were selected for site visits on the basis of impressions about their effectiveness in serving disadvantaged persons, their longevity (at least two years of operation), and the extent to which they had a program philosophy and approach responsive to community needs. Two-day site visits were made to study each program. During the visits, interviews were conducted with program directors, staff, and learners. Reviews were made of the curricula, learners' files, and administrative records; and classrooms were observed. All the studied programs provided non-threatening environments, flexibility for accommodating different skill levels and personal goals, support services, and linkages to other service providers. Instruction focused on the interests of the learners, was participatory, emphasized life skills and/or parenting education, and involved cooperative learning to build a sense of community within the classroom. Both traditional and non-traditional learning strategies were used. Learners most often mentioned that they had experienced improvements in basic skills, self-

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[127] *Effective Community Based Family Literacy* in *Literacy Works: Building State Performance Measurement, Reporting, and Improvement Systems.* (NIL, 1995).

esteem, problem solving, involvement in community affairs, parenting skills, family relationships, and their children's willingness to learn. Suggestions most commonly made by the program staff and ACBE researchers for improving the programs include: increase the program funding, hire more staff, expand learner participation in guiding the program, arrange for good child care, strengthen components for enhancing the children's personal educational development, and improve the assessment and documentation of learners' progress.

Finally, an evaluation by ALBSU in the United Kingdom[128] of the family literacy demonstration programs outlined the following achievements.

- Parents' reading attainment improved significantly; also there were improvements in their own writing, especially their own confidence in it, and in their children's writing.
- There was marked increase in literacy-related activities carried out at home by parents and children together.
- Children's early writing attainment showed a tendency towards improvement; children's early reading attainment improved significantly; and children's vocabulary developed significantly and strongly. At the 12 week follow-up, almost all of these gains were found to have been sustained.
- Parents' overall opinions were overwhelmingly positive: they found the programs to be enjoyable, useful, successful for them and in helping their children.

ALBSU attributes the success of these programs to (1) a great range and imaginativeness of the teaching, and (2) parents enjoying their own success as they saw their children' s progress.

6.1.2.5. Programs for seniors

Recognizing the special needs of seniors, at least one special program has been established and evaluated. In Grande Prairie, Alberta, an evaluation of the Seniors Helping Seniors project[129] concluded with the following recommendations for good practice in this area.

- Visit an existing literacy program before implementing a new one.
- Spend time developing a network of seniors, i.e., the best way to initiate action and make contacts for future participants.
- Make group presentations to promote the programs in the community.

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[128] *The Effectiveness Of Family Literacy Through Demonstration Programmes, Interim Report For ALBSU.* (National Foundation for Educational Research, 1995).

[129] *An Evaluation Report On The Seniors Helping Seniors Project.* (Grande Prairie Regional College, 1992)

- Focus advertising and promotional material on motivating factors such as helping and supporting others; making new friends.
- Contact those who have left the program for input.
- Increase enrolment of First Nations and immigrants through contacts with special interest groups and specific recruitment techniques.
- Negotiate to address the needs of physically and mentally challenged individuals.
- Advertise the transportation system to increase involvement.
- Choose a neutral environment.
- Provide relevant reading materials (e.g. large print books).
- Create linkages with other adult literacy programs.
- Use group learning, e.g., lecture-style sessions with specific topics or guest speakers; rallies and conferences.
- Provide training on computers.
- Involve service clubs.
- Strike a fund-raising committee.
- Allow participants to do some of the planning and organizing.
- Extend into other areas such as public speaking and seniors' rights.

6.1.3. Lessons from practices and strategies

Various strategies and practices that were aimed at improving literacy skills and personal empowerment for participation in society included public awareness information campaigns (e.g., the ABC CANADA LEARN campaign) and initiatives to involve learners. The following, then, is lessons from the latter: involving learners in various ways.

Special advocacy interventions have focused on involving the actual adult literacy learners in (1) decision-making about policies, programs and practices; and (2) providing advise on plain language. Recognizing that learners had a key role to play, as the primary stakeholders, MCL developed a Learner Action Network with funding from NLS. Lloyd (1994) studied learner involvement on boards of provincial adult literacy coalitions.[130] The purpose of the study was to

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[130] *Learner Involvement On The Boards Of Adult Literacy Coalitions – 12 Discussion Topics.* (Lloyd, 1994).

identify the issues and problems associated with bringing a significant number of literacy learners into the decision-making bodies of national, provincial, and territorial literacy organizations. It involved twelve English-language literacy coalitions represented on the board of MCL. Lloyd reported the following:

- Some interviewees felt that the learner involvement situation has improved over the last 5 years and others felt that even though the coalitions had made some mistakes, they were now on the right track.
- Some believe that coalitions do not really want to have learners involved in decision-making, others believe that learners do not really want to work for the good of a coalition.
- Almost everyone said that learner involvement is a very difficult subject to discuss – especially as learners and non-learners are working together. Others stated that the strongest disagreements seem to be between old and new board members or between board members that come from community-based programs and board members that come from more institutional programs.

Lloyd subsequently suggested the following:

- That at least one provincial coalition develop and share board orientation materials using clear language and design. These materials would include the coalition's constitution and by-laws, the mandate, goals, and objectives, an organizational chart that shows how members are represented on the board and on committees, job descriptions for each board position, nomination and election procedures, and conflict resolution procedures.
- That each provincial and territorial coalition have at least one board development meeting that focuses on learner involvement.
- That the MCL raise funds for a part-time staff member who would be responsible for board orientation, development, and on-going support.
- That coalition-based research, focusing on what actually happens when learners become involved in boards, occur wherever possible. The documentation from this research could be used as a basis for information sharing among coalitions.

Board members of adult literacy coalitions had the following recommendations.

1. Listen tc people's experiences and beliefs.
2. Collect information.
    - review coalition membership, mandate, goals and objectives
    - understand how your members are represented by the board and by other organizations
    - be clear about what your board members are expected to do for your coalition

3. Talk about difficult issues.

   - what different abilities and skills board members need to do the work of the coalition
   - how board members deal with differences that can divide a coalition
   - how board members can talk about who should represent learners on the board
   - how board members work with people's strong feelings about learner involvement

4. Make decisions and plan some changes.

   - make decisions about learner involvement and changes your board may need to consider
   - be clear about the experience coalition members need before they can work with a board
   - provide board orientation and development and give interest groups a chance to meet

5. Give and get advice.

   - This format is only a suggestion. A process must fit a coalition, organization, or program. Consider different learning and working styles.

Despite these lessons learned, the involvement of adult learners is minimal at best, and diminishing at the time of this report.

6.2. Lessons Learned In The Workplace Context

Evaluations in workplace and workforce literacy interventions have resulted in a variety of lesson learned: lessons from policy implementation, from programs and from actual practices.

6.2.1. Lessons from policy implementation

The evidence of either formal or informal policies – stated or unstated policies – is in the implementation. The attempts to address and understand the implications of workplace and workforce literacy often take the form of unstated policies, in addition to actual programs or strategies. The following are lessons learned from the examination of individual and collective attitudes toward literacy programs in and for the workplace.

Three studies have examined the outcomes of policies assuming benefits of workplace literacy to employers. In Canada in 1992, the Conference Board of Canada studied basic skills in the

employment context.[131] The first premise was that as many as one-third of Canadian workers experience some degree of difficulty applying basic reading, writing, and math skills in the workplace. The direct cost of these deficiencies had been estimated in the billions of dollars, yet less than 15% of employers offered some form of basic skills training. The purpose of this study was to provide some insight as to why the Canadian business community had not more aggressively addressed the issue. Eight organizations were reviewed in terms of basic skills deficits, the impact of these deficiencies on organizational competitiveness and why corporate programs were developed in response to this issue. Study findings were the following:

- There is limited evidence that organizations are fully committed to the issue of basic skills development as an important part of business competitiveness.
- Organizations which have implemented quality management systems however, appear to respond positively when basic skills deficiencies are identified. There is evidence that the trend towards such systems is increasing.
- In many instances, they must first see the effects of basic skills deficiencies in response to changes in technology and operating methods, and develop remedial programs out of necessity.
- In a unionized environment, employee training is seen as providing benefits to all parties. Participants see their involvement as an opportunity to develop a more positive relationship with employees and unions.
- Organizations which are downsizing may see the basic skills issue increase as younger, better educated workers are laid-off and the proportion of skilled to unskilled jobs increases.
- There are too few programs that have been in place for sufficient time or for formal evaluations. It is therefore premature to identify a set of 'best practices' for basic skills programs. However, there is evidence that employees are more likely to participate in programs if training occurs during normal working hours.

The study concluded that basic skills deficiencies in the workplace have to affect corporate interests or they will not be addressed as an issue. As more organizations undergo fundamental changes in terms of the technology applied, work processes, and management systems, there will be increased attention paid to the problem. Organizations which have gone through these processes are focused on creating a sustainable competitive advantage by improving their human resources.

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[131] *Basic Skills – Basic Business.* (Conference Board of Canada, 1992).

Again, in 1997, the Conference Board of Canada undertook a study of the link between literacy skills and the workplace[132] based on three underlying assumptions. More highly skilled, literate people are the key to increasing productivity. No matter how much capital investment occurs, without adequate investment in workforce training and education employers will remain unable to reflect high productivity performance. Employees need to continuously acquire new skills and qualifications in a process of lifelong learning to succeed in the modern workplace. Literacy skills also profit the employee: the average annual income for high-literacy individuals is approximately double that of individuals with low literacy skills. A survey was conducted with 40 organizations that were then offering a workplace literacy program. Questions were asked about (1) literacy skills outcomes that they sought and observed in their employees, and (2) the benefits they had observed from enhancing their employees' literacy skills. Most employers said that measuring the impact of enhanced literacy skills on the performance of individual employees and on the organization was extremely difficult. The outcomes of the study indicated the following ranking of benefits to employers: increased ability to handle training on the job; better team performance; improved labour-management relations; increased quality; improved results in job-specific training and quicker training results; reduced time per task; increased output of products and services; reduced error rate; better health and safety record; reduced wastage; increased retention of employees; increased profitability; increased customer retention; reduced absenteeism; success in transferring employees. The Conference Board concluded that what Canadians could do to address the workplace literacy problem was raise awareness of the importance and value of improving literacy in the workplace; establish more literacy training programs; enhance the literacy component of existing jobs and create more literacy-rich jobs; and develop additional public policies to strengthen literacy skills.

In the U.S., for the WE Upjohn Institute for Employment Research, Hollenbeck[133] studied the economic payoffs to workplace literacy. His study focused on the potential benefits to improving American literacy -- economic payoffs, on the premise that a more literate workforce provides economic benefits to the members of the workforce themselves, to employers, and to society. The benefits were presumed to be that workers would be more productive and hence earn higher wages and have greater job security; employers with more productive workers would be more competitive in their industries and would be more profitable; and society would gain by

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[132] *The Economic Benefits Of Improving Literacy Skills In The Workplace.* (Bloom, Burrows, LaFleur, and Squires, 1997).

[133] *The Economic Payoffs To Workplace Literacy.* (Hollenbeck, 1993).

having a more productive and stable economy, by having more individuals employed with higher earnings and thus paying more in taxes, and by having fewer individuals unemployed. Findings of the study suggested substantial productivity payoffs to workplace literacy programs. The answer to the question as to why there is such a low incidence of programs is that there must be market failures -- such as inaccessible capital, lack of information, or uncertainty about costs or payoffs -- that are dampening more wide-scale adoption of programs. Previous evaluations had shown more instances of use of reading and writing on the job, higher participation in meetings on the job, higher incidence of asking questions at work, no significant change in job attendance, safety, or suggestions made; and significant gain in supervisory ratings. Conclusions of this study were drawn from the analysis of data from two large, nationally representative surveys of individuals. Estimates of marginal impacts were reported to be 11%-17% increases in earnings. An uneven distribution of impacts among program participants was found making it clear that not all participants have the same experience.

6.2.2. Lessons from programs

Various workplace and workforce literacy programs have been evaluated, programs that differ in many ways but which have the same intent – to increase literacy skills of workers to enhance employability for the present and the future. The following are examples from which lessons can be learned.

6.2.2.1. Workplace training in the U.S.

The U.S. Department of Education through their National Workplace Literacy Program (NWLP) funded a project to develop a national demonstration model of skills enhancement training (SET). One such project in a cafeteria/food preparation environment was evaluated by Alamprese and Kay.[134] In keeping with NWLP program requirements that all projects be based on a partnership of workplace and educational organizations, in this case, a key labour-management entity was created. It brought together the U.S. Food and Beverage Workers Union Local 32 and the AFL-CIO Education Department and as well, their Human Resource Development Institute (HRDI) recognized for its expertise in workplace literacy. Class instruction in 72-hour modules in reading, writing, math, problem-solving and communication

were offered to cafeteria workers after work. This required strong commitment from participants who often came after a day that had started at 6:00 am and from employers who agreed to provide participants with a $200 training bonus. Competency-based curriculum was customized to the hospitality industry. It included some 21 competencies identified in a task analysis using Comprehensive Adult Student Assessment System (CASAS) and incorporated as many work-related documents as possible, a footing in literacy education and workplace relevance. Individual learning plans were developed jointly by participants and instructors. According to the evaluation report, achievements were many.

- First, a partnership was initiated and grew strong throughout the 21-month demonstration project. Key factors identified for the success of this partnership were: respect and convergence of respective goals and expectations, clear roles and responsibilities, significant contributions of each, true collaboration in activities such as the task analysis, hosted graduation and paid bonus.

- Second, political issues were clarified and ironed out in the process. The experience suggests that strong unions and strong employers make for best partners.

- Third, there were evident changes in perceptions, i.e., that more literacy skills generated higher performance and potential for upward mobility, a realization that unproductive behaviour was indeed caused by basic skills problems.

- Fourth, new kinds of communications between staff and management: *..some of the greatest ideas come from employees. But to get them, you have to communicate.*

- A fifth achievement was that of increasing the industry's educational capacity, developing education programs "from the inside out". Further, the project provided structure to reinforce the internal capacity of partners to pursue joint educational goals.

- A sixth achievement was that of providing an alternative model to basic education.

- Lastly, the graduates were clearly more assertive, confident and articulate. Their work habits and abilities had improved considerably, and they were generally more willing to initiate positive interactions with co-workers and customers.

The project was examined in terms of why and how they had been successful, from which lessons were learned. The workers' union and employers participated on an equal basis in design and operation of the project. Recruitment for SET was strongly supported by educational and career counselling, and learner counselling services. Record keeping included dialogue journals, staff interviews with participants, instructors journal of teaching experience, and exit interviews. A former business agent, respected and trusted, was named Assistant

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[134] *Literacy On The Cafeteria Line : Evaluation On The Skills Enhancement Training Program.* (Alamprese and Kay, 1993) .

Director of the project and his enhanced access was invaluable. Experienced adult educators had a background in non-traditional settings and instructor training sessions. A non-traditional educational partner allowed them to create a learning environment outside the traditional school setting.

6.2.2.2. Workplace basic skills in Alberta

For a client in the steel industry, the Alberta Vocational College (AVC) in Edmonton provided a workplace basic skills project which was evaluated through impact analysis by Barker.[135] The product of a partnership between industry, government and education, this workplace-based initiative established strong links between the steel industry through Stelco, the federal government through HRDC-NLS, and the educational community through AVC Edmonton.

The evaluation reported that, over and above 20% gains in objective test scores in reading, writing, and numeracy and high level of student satisfaction, Stelco Steel's Job Effectiveness Training (JET) resulted in 54 positive impacts. The impacts were grouped according to whether the result was anticipated or unanticipated, and related to each of the stakeholder groups involved: participants, employer, educational institution, and government. The indicators of achievement and success highlighted in the evaluation of JET are as follows.

For learner participants, anticipated and achieved impacts included retention of increased basic skill levels, utilization of skills acquired, greater self-confidence, enhanced inter-personal and company communications, positive attitude towards continuing education, lessened apprehension about learning new skills, increased job performance, increased motivation, and increased interest in the industry. Also for learner participants, unanticipated but achieved impacts included change in attitudes toward education in general, increased levels of self-esteem, ability to cope with change, confidence in self-directed learning, and confidence in Stelco management.

For the employer, anticipated and achieved impacts included an on-going system for upgrading Stelco's workforce, success at upgrading employees, development of an appropriate curriculum approach, improved communications with graduates, and knowledge of the outcomes of

upgrading activities. Also for the employer, unanticipated but achieved impacts included increased awareness of the importance of basic skills to job performance, awareness of skill deficits of employees, a ripple effect of graduates promoting upgrading, wider dissemination of JET, awareness of AVC services, increased efforts at plain language in written/verbal communications, sensitization to needs and worries of employees, a national reputation for innovation, and a successful partnership with an educational institution and government.

For the educational institution, anticipated and achieved impacts included development of generic workplace basic skills curriculum, a reputation as a provider of workplace basic skills, an enhanced reputation for innovation and flexibility, and cultivation of new partnerships and new funding. Also for the educational institution, unanticipated but achieved impacts included establishing JET as a catalyst to implement the AVC strategic plan, a pool of instructors trained for customized workplace programs, enticement of more Stelco workers to register in other AVC courses, and a national profile.

For the National Literacy Secretariat, anticipated and achieved impacts included addressing objectives of supporting innovative research-based literacy projects and encouraging workplace literacy projects; exploration of the concept of partnerships between education, industry, government; and positive public relations. Also for the NLS, an unanticipated but achieved impact was learning about workplace literacy specifics.

A number of recommendations for policy and practice were included in the final report of Stelco's JET, including :

- more impact studies of workplace basic skills programs be done to provide a basis for comparison;
- employers, employees, educational institutions and various levels of government agree on the measures of success of quality literacy training;
- upgrading Canada's workforce be conducted while individuals are employed as this project has demonstrated;
- that a study of impact be considered as a most valuable and appropriate method of examining benefits and outcomes of educational programming.

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[135] *An Impact Study Of AVC Edmonton's 1990 Job Effectiveness Training Program At Stelco Steel.* (Barker, 1991).

6.2.2.3. Labour-sponsored programs in Ontario

The Ontario Federation of Labour (OFL), which represented 650,000 workers in more than 2,000 affiliated local unions in 1995, committed to lifelong learning and to a literacy drive to operate in the workplace, joined forces with the Ontario Ministry of Skills Development (OMSD), the Ontario Ministry of Education (OME) and the Ontario Training and Adjustment Board (OTAB) to establish "BEST" – Basic Education Skills Training. BEST is a series of 400 labour-run literacy projects throughout Ontario delivered over a period of five and half years that were designed to assist unionized workers to improve their skills in reading, writing, math and communication. Its developmental programs are based on OME's core quality standards (CQS) and, consistent with OFL's goals, philosophy and structure, it proved to work well for both labour and management. In 1995, a pilot evaluation of BEST was undertaken by the OFL.[138] The factors that contributed to success were determined to be:

- reliance on non-prescriptive indicators,
- respect for autonomy and diversity,
- manageability within on-going work constraints,
- appropriate time-tabling,
- evaluation tools and processes guided by labour goals and CQS,
- absence of competition from other workplace deliverers,
- good instructors,
- committed participants,
- the right context: committed management and effective support for participants and instructors - "pro-active and practical not only verbal",
- different approaches to suit different realities and a learner-centred approach,
- appropriate learner-instructor ratio,
- principle of equity of outcome,
- respect for learners/workers,
- access for the most in need,
- a wide variety of learning materials,
- effective organizational links,
- excellent initial and follow-up practitioner training,

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[138] *Pilot Evalution Project Report: BEST.* (Connon Unda, 1995).

- participatory and continuous process of evaluation at all levels -- project, program and, classroom, and
- celebration of achievements and detailed program documentation.

Overall, it was felt that BEST had *improved the ability to shape the world on an individual as well as a collective level.*

6.2.2.4. Literacy in the hospitality industry in BC

In 1992, a workplace literacy program at Pacific Palisades Hotel in BC was evaluated by Marshal and Selman.[137] The resulting recommendations referred to achievements, reasons why they were successful, and lessons learned.

1. Regularize positions of small group of instructors who can contribute to consolidation and growth of the program based on clear statement of philosophy.
2. Determine that instructors ensure learners understand the philosophy for the program and the reasons for it. They should be flexible in implementing it and allow time for learners to experience new modes of learning and different approaches to education.
3. Policies and procedures for the program should be written down, reviewed and revised as part of the instructor orientation process.
4. Programs should be established on a repeating schedule over period of one year.
5. Efforts should be made to involve enough students to create classes at all levels. Alternately, techniques for dealing with multi-level classes should be refined.
6. When initial arrangements are made for the program, organizers should make every effort to clarify the importance of having accommodation that is consistently available and adequate for the class. Space for storage and office and counselling activities should also be provided.
7. Sponsoring educational institutions should provide systems that encourage smooth and efficient administration of the program.
8. Workplace programs should have written job descriptions with clearly delineated roles for instructors as well as a system for performance appraisal.
9. In establishing workloads/staffing, organizations need to take into account special features of being an educator in a place of work, i.e. the need for appropriate administrative support, team-building among staff and stakeholders, collaboration for curriculum-building, material development or acquisition.

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[137] *Program Evaluation Of Two Adult Basic Skills Workplace Programs.* (Marshal and Selman, 1992).

10. Getting to know staff in the workplace is crucial.

11. Administrators need to ensure they provide a solid orientation session and good support to instructors especially in view of potential isolation.

12. Learners should be assessed in relation to a balance of their own goals and to the skill level achieved.

13. Valued consideration of learning styles, initial assessment results, progress checks, acknowledgement of student achievement, development of independent learning strategies, acknowledgements of learner's prior knowledge and experience are all factors that contribute directly to the success of workplace literacy programs.

14. A process for program evaluation - separate from instructor performance appraisal and from learner progress assessment - should be established at the outset so that needed data is collected while program is in process.

15. Class time was counted as work time for purposes of seniority. In times of unemployment and threats to job security, this is an important consideration.

6.2.2.5. Basic skills for the construction industry in BC

Marshal and Selman[138] also evaluated the SkillPlan Basic Skills Upgrading Pilot project at Workplace Training Centre in Burnaby, BC. Recommendations, or lessons learned, for SkillPlan included the following. All program participants and staff should participate in the review and development of statements which reflect the underlying principles of the program's philosophy. Roles and responsibilities must be clarified at the outset with planned periodic reviews of all aspects such as marketing, implementation and student support. Program graduates should be used to notify others about advantages of the program. The upgrading centre should be highly visible with appropriate signage to attract the attention of the public and of visitors. Space adjacent to classrooms must be available for individual consultation, individual study, small group work, workshops, storage and retrieval of support materials. Parking should be conveniently located and sufficient. Ways to equalize support to students even on busy days should be explored. New staff should be involved in the needs assessment and/or literacy task analysis of the new program. Monthly in-service sessions should be established to foster understanding and support of the new programs. Institutions should support their instructional staff by organizing content and skills-specific workshops. It is

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[138] *Program Evaluation Of Two Adult Basic Skills Workplace Programs.* (Marshal and Selman, 1992).

important to combine many different assessment activities for enhanced understanding of students' skills for placement or as an indicator of progress. Assessment should be staggered to reduce stress level. It may also provide a truer picture of a student's proficiency. Regular feedback sessions should be held to provide systematic information to students on progress. At least one staff member should be trained in diagnosing and teaching those with learning disabilities. Learning centres should provide career and employment counselling on-site or on referral basis. Program designs should be sufficiently flexible to allow for changes in methodologies and content. Material that reinforces all aspects of student's experiences (home, work, community) should be used to support learning. Canadian teaching and support materials should be used. Instructors should assess materials for cultural bias. To foster peer support and peer learning, individualized learning situations should be balanced with frequent opportunities for student to student interaction. Formal (structured and systematic) evaluation should be built into the program design during planning stage with appropriate levels of time and money allocated. More systematic methods of capturing students' informal feedback should be developed. Every effort should be made to ensure adequate funding is secured before the start of a new program.

6.2.2.6. Literacy training in the U.S. Army

A study of the effectiveness of the U.S. Army Basic Skills/Career Skills Job Specific Reading Program was commissioned by the U.S. Army Continuing Education Services in 1987 and undertaken by Philippi.[139] This evaluation described the results of a formative study of the fully-operational European-wide use of military job-specific reading materials with U.S. soldiers enrolled in Basic Skills Education Program reading courses in 38 different locations.
Results indicated that problems with soldiers' job reading tasks were being addressed by the military job-reading program. Soldiers and teachers judged the curriculum to be both relevant and useful to soldiers' occupational needs, and improvement on reported individual pre/post module tests indicated the effectiveness of curriculum materials in addressing job-reading competencies. Success was broadly defined as having achieved set goals, meeting expectations, teaching skills that applied to army jobs and to the GT (ASVAB) testing tools as well. Achievements, and lessons learned, included:

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[139] *BSEP/CSEP Reading Evaluation : A Study Of The Effectiveness Of The U.S. Army Europe's Basic Skills/Career Skills Job Specific Reading Program.* (Philippi, 1987).

1. increased career and promotional potential through positive transfer from job-specific reading instruction to the improvement of traditional reading skills;

2. enhanced learning outcomes due to the amount of teacher preparation and familiarity with materials, teacher ability to present them to soldiers, classroom facilities, soldier's positive attitudes;

3. an "innovative educational strategy" through the use of job-specific military materials that reinforced the reality of their situation and deepened their understanding of it.

In point of fact, adult literacy and functional literacy instruction began in the U.S. military, and success in that context has been used as the basis for much non-military literacy programming.

6.2.3. Lessons from practices and strategies

In addition to policies and programs, various practices or strategies have been aimed at upgrading workforce literacy skills. One strategy, for example, was to develop local centres around Newfoundland, where unemployment was extremely high and skill levels atypically low. Other practices from which lessons can be learned are (1) techniques for workplace literacy needs assessment and (2) customizing instruction to a particular workplace.

6.2.3.1. Workforce education centres for the unemployed

In 1996, the Fish, Food and Allied Workers (FFAW) reviewed the effectiveness of the sixteen workplace/workforce education centres they had established in the rural out-ports of Newfoundland and Labrador to provide literacy and basic education to displaced fishery workers. The federal and provincial political entanglements resulting from the crisis in the fisheries and the deficit-reducing imperatives set a very unfavourable context for a new adult education initiative. These centres had attracted more than 3,500 participants over five years, and an evaluation report[140] highlights some reasons for their success:

- an understanding that the success of the Centres depended on treating potential participants as intelligent adults who are interested in doing something for themselves and their families;

- sponsorship by an organization that fisheries workers trusted to defend their interests, with a broad membership across the province;

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[140] *Evaluation And Assessment Of FFAW Education Centre Literacy.* (Fish, Food and Allied Workers, 1996).

- union encouragement and a sense of local ownership by putting local control in the hands of both union representatives and community volunteers;
- program staff, whether site managers, instructors or provincial co-ordinators consistently opposed to any attempt to make attendance at the Centres mandatory;
- program delivery based on the understanding that adult education should start with where people are, that learning should be tailored to individual needs and interests and should happen at their own pace;
- valuable information collected on, and integrated into programming, e.g., earlier experience with the school system, concerns about education before/after the (fishing) moratorium, motivation for getting involved, and academic goals;
- overall enthusiasm and approval of the Centres i.e. warm, friendly and relaxed atmosphere; being treated like adults, flexible hours;
- instructors who had the same background and status as the participants;
- use of a variety of techniques to encourage learning;
- provincial co-ordination and resource materials when needed;
- informal support and counselling about personal and family problems.

There were many accomplishments of the Education Centres.

- Individual self-esteem improved dramatically. Many students came to the centre believing they were too old to learn or not intelligent enough to learn. Many reported changes in their self-image; most are more self-confident, more willing to take risks, feeling better about themselves, having a better outlook on life, have a greater sense of pride and "no longer embarrassed about [their] grade level."
- Participants developed critical thinking skills through a variety of activities such as discussions and interviews on TV newscasts and newspapers articles. Instead of jumping the gun and blaming others, participants learned to analyze the situation rationally and look at the problem from all angles before assigning blame. Then they began to come up with solutions almost unconsciously.
- The centres were used as an alternative means of education by one school board for students having difficulty with the regular curriculum.
- Participants are reading more and understanding it better. Some feel more able to help their children with schoolwork. Many now write their own business letters and job resumes and take care of daily activities that require reading, writing and math skills.

The evaluation also listed suggested improvements, such as:

1. addressing dislikes indicated by some participants including a need for more lab materials; instructor layoffs due to lack of funding; working with PLATO computer program;

2. ensuring pathways to fisheries-related courses like fibreglassing and Lifeline in the community;

3. extra support for those who needed help with their foundation skills in reading, writing and math and could not use the PLATO computer program;

4. offering more courses beyond ABE;

5. opening the Centres to all community members and their families not only those who were laid-off; increase family involvement; develop a summer program for kids;

6. securing long-term commitment and funding; ensuring long-term planning and job security for instructors.

6.2.3.2. Workplace literacy needs assessment

The National Institute for Literacy (NIL)[141] in the U.S. reported on a strategy to produce a definitive handbook on alternative assessment techniques for workplace literacy. The intention was to find a way to understand organization context so that employees' capabilities could be assessed. Project staff researched six state government organization work sites, interviewing workers, observing them on the job, and involving them in focus groups to get feedback on preliminary project reports. The purpose was to develop and document alternative techniques for assessing literacy capabilities and needs within organizations -- techniques that involve workers and management, that respect the dignity of workers and do not embarrass them, and that objectively assess the needs of an organization without assuming that a 'basic skills' program is the only route to a more productive workplace. In the course of their research, project staff determined that the up-front organizational assessment for workplace literacy should be part of an on-going collaborative process in which all stakeholders are helped to ask critical questions about skills upgrading and organizational barriers and incentives to learning. This form of assessment was seen as an ideal way to build a foundation for long-range planning. Consequently, findings were presented in *Asking New Questions*, a report that raises

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[141] *Assessment Of Workplace Literacy.* (National Institute for Literacy, 1993).

and discusses questions that can help guide other organizations in finding effective approaches to workplace literacy. How does the organization's history affect the approach to workplace literacy? With regard to a theoretical framework, what definition of literacy is guiding the approach? What is being assessed and for what purpose? In the context of the workplace, what are the steps and methods for conducting an organizational assessment? What principles should guide assessment strategies? How do workers perceive their learning needs? Are their perceptions different from other stakeholders in the organization? What are the social and organizational barriers and incentives to learning? What can the organization do to reduce barriers and increase incentives for learning? How will assessment keep up with on-going changes and variations within the organization? Project staff also arrived at two general observations about workplace education: (1) workers need to be involved in all phases of program development, which requires an atmosphere or respect, ownership, flexibility, and an open labour-management relationship that literacy practitioners cannot always affect or influence; (2) for a program to be successful, all stakeholders-- from workers to top administrators-- need to buy in to the goals and methods, which is especially difficult to effect where different interests are at stake. Key advice to educators was: act as 'consultants' and guide rather than direct; find the right combination to unlock the particular organization, but don't compromise on what it takes to run a quality program.

6.2.3.3. Customizing instruction

Vance-Granville Community College in North Carolina and the National Alliance of Business (NAB) worked with CertainTeed Corporation to customize part of its workplace literacy program to the functional contexts of specific jobs. Their purpose was to modify an existing workplace literacy program by customizing instruction to individual employees' job needs in order to prepare the workforce for a "lean manufacturing" environment. These environments were characterized by flexible automated machinery, skilled team work, and customized products. Considerable job task analysis and needs assessment was done by observing workers in their jobs, interviewing workers and supervisors, conducting an *Employee Learning Preferences Survey*, analyzing written material used on the job, and testing workers' basic skills. Computer-assisted instructional software and self-paced workbooks were prepared for each job category and used along with conventional classroom instruction. The evaluation[142] reported scores on

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[142] *Precision Strike Workplace Literacy.* (National Institute for Literacy, 1993).

various basic skills tests that favoured the "Precision Strike" training over the conventional literacy program training. Job performance indicators such as run rates and waste rates showed mixed results, with some favouring the Precision Strike group and some favouring the conventional program group. The Precision Strike group reduced their complaint rate for one product considerably more than reported. Both the Precision Strike and conventional groups performed far better than the group with no or minimal basic skills training. Precision Strike participants unanimously reported that the program had enhanced their math skills on the job, while only a few reported improvements in reading or writing; the participants in the conventional literacy program were not similarly queried. The company now conducts job-linked training which is based on the Precision Strike training, but rather than targeting entire crews and providing simultaneous training for several different jobs, it trains people for one job at a time, starting at the highest levels.

6.3. Lessons Learned In The Context Of Teaching and Learning

In the context of teaching and learning, lessons learned can be drawn for policies, programs and practices related to applications of learning technologies, and teaching strategies for special needs students.

6.3.1. Lessons from policy implementation

Designing and offering programs presents one kind of challenge, recruiting and retaining students appears to be another. From a study done by the Ministry of Education in Quebec,[143] it appears that one in four individuals drops out of adult literacy programs, and the turnover in the literacy learner population is 55%. The causes are varied, but loosely related to acquired attitudes toward learning, motivation, work/family responsibilities, and elements of the program delivery (e.g., materials and learner involvement). The Quebec report recommends that: learners be grouped according to age, similar life experience and learning goals; better follow-up of each learner; open classes (flexibility, adapting to learner schedules outside literacy training); review learner objectives and motivations after establishing a trust relationship; and maintaining an updated list of learners requiring government support to continue literacy training.

6.3.2. Lessons from programs

Lessons can be learned from at least three different types of delivery/programs that have been evaluated: a library-based program, volunteer tutoring programs, and adult basic education.

6.3.2.1. A library-based program

In 1994, an evaluation of the literacy project at the Vancouver Public Library -- a first of its kind in Canada -- was conducted by Quigley, Kripps, and Firth.[144] The project evaluation allowed project stakeholders to compare the provision of their literacy services to available standards, to see if library activities did indeed meet the needs and expectations of the local literacy community and, to evaluate services internally (staff) as well as externally for the benefit of patrons in Vancouver community. The success of the Vancouver Public Library literacy project was such that it has become a model for other libraries. A number of recommendations made during this evaluation process warrant proper examination, i.e., that the library should:

1. strive for a friendly and welcoming atmosphere;
2. offer personalized, one-to-one assistance for learners;
3. use direct input from learners in planning of services and purchasing materials;
4. assume leadership in the promotion and advocacy of literacy;
5. create an on-going position for literacy services coordinator;
6. establish a Central Literacy telephone number;
7. provide funding to support other local literacy efforts;
8. provide demonstration of literacy collections;
9. use checklists as points of departure, as "visions" for continued development of literacy services;
10. review the "Action for Literacy Statement" of the Canadian Library Association's Action for Literacy Interest Group and consider endorsing it as Library Policy;
11. incorporate the gathering of literacy material circulation statistics into its systems analysis process and carry it out on a regular basis;

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[143] *Identification Des Causes De Départ Et D'abandon Au Programme D'alphabétisation : Enquête Effectuée Auprès Des Adults Inscrits En Alphabétisation 1991-1992, Alma: Centre De Lecture Et D'écriture (CLÉ).* (Boivin, 1993).

[144] *Literacy Evaluation Project : Vancouver Public Library.* (Quigley, Kripps, and Firth, 1994)

12. issue full cataloguing of literacy non-fiction book materials, and verify if accessibility is appropriate for target audiences;
13. include a statement on buying literacy materials in its Collection Development Policy Manual;
14. purchase "high interest general materials" as suggested by learners in focus groups;
15. assume partnership and/or advocacy role to increase the availability of desired materials;
16. collect literacy material bibliographies on special literacy topics such as family, workplace, and computer-assisted learning;
17. provide more staff training on literacy issues and resources;
18. conduct a Staff Awareness Survey on literacy in the library on a regular basis.

6.3.2.2. Volunteer tutoring programs

In a specific context, the behaviours and beliefs of a group of volunteer tutors was examined by Hambly[145] to discover why they did not maintain close contact with their literacy organization; and the result was some lessons to be learned about tutor training and volunteer management. She found among tutors the belief that a learner who does not succeed in a classroom learning format will be helped by one-on-one tutoring, that they rely on individual attention rather than specific training to function in the match. Tutors value goodwill over good training, and defend their volunteer activities based on perceived needs rather than demonstrable progress and results. Hambly concluded that these beliefs create tutors who feel inadequate yet who function independently because they are motivated and because they believe there is no one better volunteering for the job. These beliefs are traced back to the nature of the program, i.e., the volunteers have been told that they are essential to literacy provision, and they are not aware of other educational opportunities for their learners. Hambly recommends that tutors realize they are accountable to the organization. However, the organization needs to provide on-going training, require extra training as tutors take on new responsibilities, and forge closer links with specialists who can serve as consultants. Tutors should also learn about the adult education sector and about the variety of ways of offering adult literacy instruction; and they should recognize that their efforts have an impact on the learner's life and future aspirations. This should foster accountability to the organization and a desire to seek help for the learner and on-

going training for themselves. In general, volunteer programs need to be able to examine the functions and outcomes of their activities, and more research is necessary to understand how tutors in the volunteer sector believe and behave, given the economic importance of volunteer work in Canada, and the fact that the volunteer sector is a significant provider of adult literacy.

6.3.2.3. Adult basic education

Many adult literacy programs have taken the form of ABE – Adult Basic Education offered by the established public education system. Many ABE programs have been evaluated, and the following are four different sets of lessons learned. Adult basic education is the heritage of a democratic system in which an informed populace - with access to print sources of information - is the bedrock for active citizen participation. Recognizing that on-going efforts must be made to be well-prepared for the post-industrial society and its emphasis on knowledge, service, and high technology employment, North Carolina State University studied its provision of adult basic education from the perspectives and interactions specific to instruction rather than from a program administration and program integration point of view.[146] The evaluation defined success in terms of outcomes:

- economic: clear links were established between program participation and securing a job, job mobility, increased job security, salary increases and decrease of dependence on public assistance;
- educational: students' moving in the educational hierarchy and getting involved in other job-training programs;
- family and social: participation in community organizations, voting, helping children with schooling.

From the instructor's perspective, success as an instructor and student success are felt to be intertwined; more specifically, success is a movement on the hierarchy of skills acquisition; meeting students' goals and incremental progress goals and longer range social mobility goals; trying hard; and social, emotional, psychological development. From the learner's perspective, success meant new skills; new applications for recently acquired skills; and attitude changes.

Learners felt their instruction had been successful because the instructor had been a recruiter, counsellor, friend, confidante, teacher, resource broker, and nurturer. Instructors were all very

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[145] *Behavior And Beliefs Of Volunteer Literacy Tutors.* (Hambly, 1998).
[146] *North Carolina Adult Basic Education Instructional Program Evaluation.* (Fingeret, et. al, 1985).

concerned, dedicated persons who worked well beyond hours for which they had been paid. Mostly, they had met individual emotional and psychological needs. Recommendations made in the North Carolina State University evaluation provided the following lessons learned.

1. A decision that an adult learner is unable to progress should not be made on the basis of attempting instruction through only one model.

2. Instructors should engage learners in the examination of their relationship to learning rather that simply see themselves as teaching a set of de-contextualized skills.

3. Instructors should see themselves as testing and refining the developing knowledge base.

4. Caution must be exercised when using employment gains as a rationale for program development or as a criterion for evaluation.

5. Additional research is needed to assist program personnel in understanding the relationship between programmatic factors and the lives, characteristics and decision-making processes of potential adult learners.

6. Reading materials that related to students' lives and interests will facilitate comprehension because they supply "clues" that students can interpret as well as enhancing the intrinsic interest of the material.

A second evaluation study is comprised of three case studies in adult literacy learning.[147] All of the case studies came out of programs that, by state mandate, focus instruction around component skills through diagnostic tests, worksheets, and mastery tests. No examples of learning breakthroughs were found in any of these cases and not in ten others that were compiled at the same time. All three learners struggled to advance in basic skills, particularly in writing. The teachers were confronted with a wider range of abilities in their classrooms than they could handle effectively and had little, if any diagnostic information to guide their individual instruction. Because of open entry/open exit policies and a desire to allow students to set their own instructional goals, instructors usually had separate plans and materials for each student. These policies are questioned, as are the instructional procedures used and the methods through which such programs are evaluated. According to these researchers, ABE in the U.S. is a patchwork of federal, state, and local programs, aimed toward helping individuals and families acquire the skills they need to obtain and hold remunerative jobs, manage their homes, and participate fully in community and civic affairs. The effectiveness of the various programs is a continuing concern, as are the numerous policies that allocate and regulate this investment.

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[147] *Policy And Practice In Adult Learning: A Case Study Perspective.* (Venezky, Sabatini, Brooks and Carino, 1996).

Literacy is a difficult concept to define and measure. Surveys offer perspectives on a highly complex and distributed educational system that, unlike elementary/secondary system, lacks a substantial structure. What policies might induce more adults in need to attend programs, improve the efficiency of instruction and its outcomes, or better serve the needs of families and employers cannot be determined by these results. These researchers identify lessons learned with regard to instructional issues, administrative issues, and policy issues.

- A dividing line between education for a pressing social need, which justifies the ABE and ESL programs, and continuing education for adults seeking enrichment, has never been made, in part because the U.S. government has yet to take a strong interest in the latter area.
- Many of the most needy do not attend adult literacy programs. If they are to be reached, then either significant new funding will be required or priorities will need to be set, not just for whom to admit, but also for how long to retain someone who is not progressing adequately toward completion.
- Allowing each student to set his or her own instructional goals is a democratic approach to adult education, but it is not an effective way to use limited instructional resources. More restricted program designs, with fixed sets of skills offered at specified times, might be a more effective approach for adult basic skill education.
- For program evaluation, further adjustments need to be made, depending upon how admission and instruction might be organized. If programs are to continue on an open entry/open exit basis with learner designation of goals, then evaluation of program outcomes needs to be based upon the specific learner goals involved and not upon an arbitrary skills test or any other single performance measure.

The following policy assessment may have applicability in Canada as well.

> *Adult literacy programs are not entitlements, nor are they social support systems, nor are they the leading edge of a national lifelong learning program. They are funded to provide the basic educational skills required for successful integration into modern society. To achieve this mission, they need to be structured in a manner conducive to adult learning. Support services are also required to alleviate a variety of barriers to full participation by the target population, such as transportation and childcare assistance, job counseling, and vision and hearing screening. But programs must also be educationally sound if they are to succeed, and it is doubtful that very many programs will meet the expectations of their sponsors when critical educational decisions are primarily made by the participants rather that the instructors and administrators. In the translation of*

legislation into policy, and policy into practice, adult literacy programs in the United States may have strayed from the most direct route to learning achievement.

In a third study, Dickinson identified factors affecting goal completion of Adult Basic Education students in Vermont.[148] Dickinson noted that attrition in ABE programs is a problem that has concerned tutors and administrators since the advent of the program. It is estimated that approximately 60% of those who enrol in ABE leave the program before reaching their goal. This study questioned successful students directly about factors that influenced their persistence. Six of the ten said that their own determination had the greatest impact. Other factors included: making progress, improved self-esteem (low upon entry into the program but greatly improved upon success and goal attainment), presence of support (family and tutor), flexible meeting times, and convenient location of classes (home or nearby learning centre).

6.3.3. Lessons from practices and strategies

Various practices and strategies have been aimed at special populations (e.g., seniors, youth, people with learning disabilities). The following are lessons learned from specific strategies aimed at teaching and learning literacy in the context of lifelong learning, in particular from (1) the evaluation of the effectiveness of particular software programs, (2) using various learning technologies, (3) using the Internet, (4) approaches for special needs students, (5) teaching strategies, and (6) program accountability.

6.3.3.1. Effectiveness of software

Software programs for literacy instruction have been the focus of several evaluations. In the United Kingdom, two particular types of educational software used in adult literacy program were studied by Millar.[149] According to Millar, there is a concern over the efficacy, instructional methodology and cost-effectiveness of Integrated Learning Systems (ILS) packages, defined as large pre-packaged turnkey computer systems that provide for instruction in several subject areas and include the production of reports on student progress. The instruction offered by

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[148] *Factors Affecting Goal Completion Of Adult Basic Education Students In The Northeast Kingdom Of Vermont.* (Dickinson, 1996).

[149] *Executive Summary Of The Use Of Educational Software In Adult Literacy Programs: A Comparison Of Integrated Learning Systems And Stand-Alone Software.* (Millar, 1996).

these systems is usually distributed to a class of students via computer terminals or through a network of microcomputers. Stand-alone software is written material for use on individual personal computers.

Findings of the study provide some lessons in the use of software in adult literacy. The advantages of using any computer software with adult students are that students acquire basic computer skills; computers give students the privacy they may desire; computers are prestigious for the programs and they attract more students; and computers provide fast feedback for each student. However, management of records and cost-effectiveness cannot be supported nor refuted. Six other advantage claims are not supported by research: dramatic achievement gains, improved attitudes, increased self-esteem, individual content, control, and flexibility. Overall, no type of software was shown to be particularly more advantageous. Disadvantages of using any educational software with adult students are that (1) the software may not be appropriate for adult students, in that they may be based on an instructional approach which is incompatible with both a learner-centred program and an understanding of reading as a meaning or schema process; and (2) it may be difficult to integrate the software packages into the program's curriculum effectively. Out of eight presumed disadvantages, four of them -- student fear, technological change, technical problems and role changes -- did not seem to be problems. Four others were cost, training, inappropriate instruction and integration. Similarities and differences between ILS and Stand-Alone Software were that ILSs are not more effective than stand-alone CAI software packages in terms of reading gains made by students, the students' attitudes toward computers, students' self-esteem, or computer skills learned by students. ILSs do provide student records; ILS vendors provide training; but ILSs are much more expensive. Recommendations from the study are the following.

1. More research into the effectiveness of using computers in adult literacy settings needs to be conducted.

2. Teachers should investigate ways of helping students to focus on their semantic processing abilities.

3. More basic computer skills classes should be provided for this population.

4. Teachers must carefully weigh the costs of these packages in relation to their actual advantages and their own program budgets.

5. All software for reading instruction should include an authoring package.

6. Software developers should redesign their current packages or design future packages to give students more control over the software.

7. More research into the effectiveness of computer feedback is needed. Software developers could enhance feedback of packages by adding ways of working students through the problems that they answer incorrectly, and add a way for teachers to remove any exercises and questions that are either inappropriate or wrong.

8. Future research should investigate how the ILSs evaluate and place students at various levels, and examine whether or not this assessment level is appropriate.

9. More funding should be made available to adult literacy programs so that adequate computer hardware and software can be purchased, or that ways of getting more donated hardware for the programs be investigated.

10. More research needs to be conducted into the methodological approaches of the software packages being marketed to adult literacy programs. Teachers need training so they can evaluate whether or not software is compatible with their own instructional approach.

In Canada, a study was conducted into computer-assisted reading instruction at the Alberta Vocational College (AVC) in Calgary.[150] The purpose of this two-year quantitative and qualitative evaluation process of a computer-assisted reading instruction (CARI) program was to determine the short/long-term effectiveness of the Autoskill software program in improving the reading skills of three groups of adult upgrading students: ABE, ESL and ABL. The study revealed that on the positive side, at the conclusion of their Autoskill experience all three groups reported being comfortable using a computer. For some (especially those who were very conscious of their low literacy level) quiet and privacy were essential for achieving success. Most would use it again with adequate support given to instructors to set up the program, as Autoskill was a "continued learning experience" for instructors too. Students with memory difficulties were making connections between letters and sounds; students were becoming confident using the computer. A four-to-one ratio of students to instructor significantly improved the relationship. ABE students scored much higher on the AVC entrance tests than was expected. On the negative side, lack of computer experience was a problem, as only ABE students reported having any significant computer experience (word processing) prior to using Autoskill; for the others it was a "frustrating experience." They had difficulty locating appropriate keys, couldn't adapt to the mouse, experienced eye stress, and felt pressured by screen cues. As well, Autoskill had many errors in terms of tracking progress. Working independently worked

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[150] *Computer-Assisted Reading Instruction Project - Alberta Vocational College (AVC) - Calgary, Interim Report.* (Howard Research and Instructional Systems Inc and Kysela Consultants Ltd., 1996).

well for some but not for others who felt discussion and conversation were more meaningful and that they would learn more from interacting with other students. Autoskill had no effect on capacity to work independently; and ABE instructors felt Autoskill was counter-productive to improving reading skills. Tests were tedious and boring; and students felt "talked down to." The evaluation report recommended design of Autoskill to handle access by multiple users; further pre-piloting to reduce technical difficulties; more orientation for students including explanation of rationale and purpose for each sub-skill portion; reduced testing; lowering mastery levels for certain groups of adult learners; reducing working hours to reduce student fatigue; expanding/reviewing content: increase cloze, sequencing, inference and main idea exercises (4 types of reading exercises); supplemental materials; Autoskills incorporated into existing programs rather than treated as a stand-alone program; and expansion of activities that teach meaning analysis, comprehension, and metacognitive skills.

Before that, Levin[151] had assessed computer-based employment skill learning systems for adults in 1994. The purpose of his study was to assess the strengths and weaknesses of five computer-based, English language integrated learning systems that were being marketed commercially in Canada for use in improving employment-related skills of adults. The study was intended to generate data on the contexts in which the systems were used, the views of staff and learners in diverse settings, and the particular strong and weak points of each system. Among the key findings were the following:

1. The five systems were best thought of as falling into three groups. Autoskill was intended to build skills in reading and mathematics but was not designed to cover curriculum. Pathfinder was a computer-managed learning system that could be adapted fairly readily to many different kinds of learning. CCC, Invest and PLATO were computer-assisted instruction systems which provided coverage of many subject areas and levels with instruction largely on the computer.

2. Staff and learners were very positive about operating with the systems.

3. The variability among sites using any particular system was of more significance than the variability between computer systems. In particular, the quality of staff was a critical factor in program success.

4. Sites did not have good information on the learning and other outcomes of their programs.

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[151] *Assessment Of Computer-Based Employment Skill Learning Systems For Adults.* (Levin, 1994)

5. Taking into account the distinct differences noted in Finding #1 above, each of the five systems could be a useful vehicle for adult learning. The choice of system will depend on purpose and match with program, cost, and local support.

Levin set out the following considerations. The computer companies agreed that their products could improve greatly in terms of being more stimulating, drawing on learners' prior knowledge, or stressing higher order thinking skills. The systems had more focus on traditional school content than workplace skills. Learners had a more central and autonomous role than is the case in most schools or post-secondary institutions. Staff were more likely to act as guides and advisors, and learners were more self-directed. Computer-based learning systems can provide customized instruction. Formal education may have some difficulty moving toward truly individualized learning. Computer systems can provide learning opportunities to anyone, anywhere, at any time. Levin identified the following policy issues inherent in the use of learning technologies in adult literacy programs.

1. Most program sites embody a sequential model of employment skill development (skills are learned before work is obtained), and much of the content and pedagogy in the systems is very traditional.
2. Given the amount of variability in adult learning sites, the question of standards and best practices arises; however, this may be premature given the knowledge of what works best and why.
3. Most sites are unconnected to any actual workplace or job.
4. Sites have inadequate data on program outcomes.
5. There is a lack of Canadian content and systems.
6. Programs are driven at least as much by funding policies as by educational concerns.

6.3.3.2. Uses of learning technologies

The use of technology in adult literacy programs in the U.S. was studied by the National Center on Adult Literacy (NCAL) in 1996.[152] The goals of the survey were (1) to identify the extent of computer technology use in adult literacy programs; (2) to better understand the attitudes, beliefs, and experiences of adult literacy providers in implementing technology; and (3) to conduct a systematic inventory of the types of computer technology currently in use in adult

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[152] *Technology And Adult Literacy: Findings From A Survey On Technology Use In Adult Literacy Programs.* (Hopey, Harvey-Morgan, and Rethemeyer, 1996).

literacy programs. Many adult literacy programs have a firm foothold in technology. While there is still resistance and questioning about the effectiveness of using technology among some providers, the overall level of interest in using technology is high. Issues of access are a problem: inadequate amounts of technology available means that most students who do have access have a limited amount of time to use the technology and that many students have no access whatsoever, and few students have access to anything approaching the latest technology. There is a lack of financial resources; while many programs are reasonably able to address their administrative needs, most do not have the funds to purchase the hardware and software needed to provide their students with adequate computer access. Levels of staff expertise are inadequate; there is a notable lack of adequate training, information about computer technology, or effective uses of technology. There is a major need for staff development – high quality, multi-content, hands-on, and on-going. On-line technologies are not being used by the majority, yet. These technologies are valuable for lessening the isolation that many adult literacy providers and students experience, for increasing the communication between staff and students within and between programs, for increasing access to high quality materials and current resources and information, for streamlining administrative and reporting processes, for developing a centralized 'clearinghouse' of information and resources, and for exploring innovative instructional and staff development approaches. With regard to the use of technologies in adult literacy programs, the 1996 NCAL study made several recommendations. Federal and state policy makers, private funders, hardware and software developers, and adult literacy practitioners can all play a role improving the financial picture. Program staff need to be encouraged to increase their use of technology. Incentives might be offered for instruction that integrates technology into the delivery system. Partnerships should be explored to make access to more and better technology resources and to take advantage of economies of scale. States should be required to become more knowledgeable about the issue and to submit a technology plan.

In 1997, Elmore conducted an analysis of adult literacy, technology and public policy in the U.S. for the National Center on Adult Literacy.[153] Technology support is offered by the Southeast and Islands Regional Technology in Education Consortium (SEIR*TEC) -- a group of national, regional, and university-based organizations -- to school districts, pre-service training institutions, adult and family literacy programs and other constituents in the Southeastern United

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[153] *Adult Literacy, Technology And Public Policy: An Analysis Of The Southeastern United States Region.* (Elmore, 1997).

States region. The organization also promotes technology's educational potential, helps jurisdictions elicit support for technology products and programs, and designs and implements evaluative measures that monitor the integration of technology. The purpose of Elmore's study was to identify the ways the participants in this region were planning for, funding, and using technology in various adult learning contexts. According to Elmore, *the ability to envision future development and outcomes for technology in adult literacy must be supported by the experiences and recommendations of colleagues.* The study identified two problems: (1) adult literacy programs were somewhat behind in the adoption and development of technology resources; and (2) economic considerations remained a major impediment to technology use in adult literacy programs. The apparent solutions to these problems were that adult educators' interest in technology continues to grow, and the fact that technology held enormous potential for the future of adult literacy by:

- reducing the isolation that many practitioners and learners experience;
- increasing access to high quality materials and emerging research;
- streamlining administrative and reporting processes;
- delivering innovative instructional and staff development materials;
- supporting connections between dispersed and diverse learning populations and between learners and instructors; and
- by offering individuals who cannot attend formal classes the educational opportunities they would not otherwise have.

Elmore made the following recommendations to increase the appropriate use of learning technologies in adult literacy programs.

1. Encourage the development of state level policies that include adult literacy as a component of any state wide educational technology plan.
2. Encourage local adult literacy programs to develop collaborative technology partnerships to share technology resources.
3. Provide local adult literacy programs with inexpensive planning expertise, support and resources so when they encounter a planning, staff development, or technical roadblock they have resources to assist them.
4. Encourage programs to 'get on-line' as well as critically engage the role of the Internet in their organizations.

In 1993, for a Congress report from the U.S. Office of Technology, the National Center for Adult Literacy[154] undertook to study what were then "new technologies" in the context of adult literacy. Key findings of that report provide some lessons.

- Not all adult literacy needs are being met (less than 10%), and are a function of where one lives or works. Despite growth in adult literacy services, the literacy education process operates at the margin and the system of services has become increasingly fragmented.
- Technology could help by alleviating some of the difficulties of administration, service delivery, recruitment and retention of clients, high turnover of staff and volunteers; maintaining information, tracking funds, and matching learners to support services; training volunteers and staff and to connect them with one another to share information and to reduce isolation; and moving program resources beyond the classroom, to reach learners wherever they are.
- Despite this, technology is not being exploited because much of the software lacks creativity; products are geared towards children instead of adults; few literacy providers have sufficient technology for broad sustained use; staff and volunteers have limited knowledge and training in the use of technology as a teaching tool; and consumer electronics and broadcast technologies are surprisingly underused.

The Office of Technology determined its options at that time to be to eliminate impediments to the use of technology in existing laws and regulations, add new provisions encouraging technology and enact directives for interagency cooperation on technology planning and use in literacy-related programs; provide funds for hardware and software acquisition; stimulate development of adult literacy software and programming; expand training and professional development opportunities; and encourage experiments with personal electronic learning devices, telecommunication networks, and multimedia systems.

6.3.3.3. Using the Internet

In Australia, a recent study examined the use of on-line technologies by adult literacy teachers and learners.[155] At the Victoria University of Technology, the Literacy Learning through

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[154] *Adult Literacy And New Technologies: Tools For A Lifetime.* (National Centre for Adult Literacy, 1993).

[155] *Going On-Line: A Research Report On Use Of On-Line Technologies By Adult Literacy Teachers And Learners.* (Victoria University of Technology, 1998).

Technology department researched nine providers of adult literacy in Victoria, Australia. The project differentiated between site participants on criteria related to level of expertise with on-line technology: 'starters' in terms of their experience of using information technology, 'users' had reasonable familiarity with standard routines, and 'developers' who demonstrated expertise with a wide range of sub-routines for using Internet tools and innovating with the technology. Several factors affected the continuum including home access to the Internet, membership of a supporting network and personal motivation and commitment. All levels of staff assisted adult literacy students to access the Internet. Developers were able to offer the richest range of activities. Study findings and lessons learned were the following:

- Access is crucial for acquiring on-line skills for staff (free access at home and at work) and students (access to a professional with developer skills).
- Professional development workshops are necessary for those starting out with networking.
- There is evidence of higher productivity and more positive attitudes to learning from students who are using technology. There is evidence of increased output and greater understanding of what producing written text involves, increased participation by learners and higher levels of enthusiasm and interest.
- Student experience of on-line technology also requires closer research into the effects on development of literacy skills, the social effects such as increased retention within classes, and the extent to which students recruit other students with literacy needs to be involved with on-line technology.

6.3.3.4. Special needs students

An entirely different body of research focuses on the effective delivery of literacy education/training to special populations. For example, Fink studied adults with dyslexia.[156] She asked the question: How, when, and under what conditions do individuals with severe dyslexia develop high literacy levels? This question was the basis of an interview and literacy assessment study of normative adult readers and sixty highly successful men and women with dyslexia. These individuals often devised novel strategies that could ultimately prove useful in the education of others at risk for reading failure. The results of the study indicated that interest-

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[156] *Successful Adults With Dyslexia Develop High Literacy.* (Fink, 1998).

driven reading was key to development of high literacy levels; development was augmented by avid reading in a content area of passionate personal interest along with systematic decoding instruction; and reading about a favourite subject enhanced their depth of background knowledge and enabled them to gain practice, which fostered development of fluency and increasingly sophisticated skills. Fink subsequently proposed that:

- Interest-driven instruction be used to help develop fluency and automaticity;
- teachers select and provide reading materials based on students' passionate interests;
- reading interest inventories be used to ascertain individual interests;
- informal interviews be conducted, inquiring about students' favourite books, hobbies, movies, and TV programs, then appropriate materials be gathered; and
- awareness that while all individuals with dyslexia face terrible obstacles, being female may add an additional risk factor for reading failure, because a female's reading difficulty may be ignored more often than a male's.

In a different study, Fowler and Scarborough[157] examined the question: should reading-disabled adults be distinguished from other adults seeking literacy instruction? In a review of related theory and research, it was suggested that, in practice if not necessarily in theory, there are fewer differences than traditionally has been assumed between adults with reading disabilities and adults with reading problems that are thought to stem from a lack of educational opportunity or from a generally weak aptitude for learning. Consequently, the argument can be made that much of what has been learned from research on reading disabilities may be pertinent to the identification and the literacy development of adult learners generally. The study findings are as follows.

- The practical reality is that a large number of adults seeking literacy instruction today present limited reading skills which reflect a more generalized learning problem and/or the motivational and educational disadvantages of a history of failure and a lower socio-economic status. It is impossible to disentangle the multiple problems contributing to and stemming from the reading difficulty.
- Regardless, most adult poor readers are likely to have a great deal in common with regard to their overall literacy levels, their profiles of component reading skills, their difficulties with

phoneme awareness and other associated cognitive-linguistic weaknesses, their educational and vocational histories, their social-emotional difficulties, their expressed needs and, potentially, their responsiveness to literacy assistance/training in adulthood.

- Their reading abilities appear to be hindered by weaknesses in the same components of the reading process that have been shown to pose the greatest challenges to children learning – and especially failing to learn – to read.

These researchers made the following suggestions:

1. To plan effective instructional programs for adults seeking literacy assistance, it is essential to use a sensitive diagnostic battery that will be informative about which aspects of the reading process are most problematic for an individual.
2. The most effective approach to instruction would be a skill-based one that is tailored to the client's current levels of skill in word recognition, decoding automaticity, reading comprehension, and listening comprehension.
3. Instruction in oral phonological analysis skills as well as in print- focused training is important.
4. The severity and nature of an individual's reading problem should be the guiding factor in providing treatment.

The term disability should be applied only where some practical advantage is to be gained.

6.3.3.5. Teaching strategies

Various interesting teaching strategies have been tried and evaluated, for example, the *A Feel for Books* program.[158] A series of book discussions were held in libraries, facilitated on a volunteer basis by local ABE staff and attended by 40-50 ABE students from several local programs. Six teachers and ten students from four literacy programs volunteered for the program evaluation. An external evaluator conducted an ethnographic evaluation using pre- and post-interviews about participants' perceived changes in literacy, and teachers kept logs to observe students' progress. The evaluator used a "modified constant comparative" method to analyze the content of interviews with the sixteen mostly African-American participants. She categorized data using three frameworks: (1) ways of understanding reading: the phonics

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[157] *Should Reading-Disabled Adults Be Distinguished From Other Adults Seeking Literacy Instruction? A Review Of Theory And Research.* (Fowler and Scarborough, 1993).

[158] *"A Feel For Books" Program Effectiveness Study.* (National Institute for Literacy, 1993).

model, the whole word model, and the meaning model, (2) dimensions of literacy learning: perceptions, practices, strategies and interest, and goals, and (3) attributes and skills of adult educators: instructional skills, transaction skills, role, personality, knowledge. A Resource Manual was developed to help programs wishing to start their own book discussion program. To analyze change in adult learners and teachers resulting from their participation in a book discussion group program, a program evaluation was undertaken, revealing that both students and teachers reported positive changes. The students reported increases in self-improvement, satisfaction with literacy performances, self-esteem, personal functioning, and clarity and accessibility of goals. There was no change in students' understanding of effective instruction, but teachers' greatest reported change was in improved instructional skills, especially skills in questioning. Six of the ten students (and all six teachers) developed or retained the meaning model of reading; the phonics model was the second most popular, and the whole word model was the least. Most participants ranked the program as 'excellent.' They described the book discussions between students and teachers and peers as democratic—'a great leveller.' Students especially liked the opportunity to express themselves; they said they now talk more easily and often, and that they learned more about themselves and the world. All participants had difficulty completing logs. Teachers generally did not have time but valued the encouragement to observe student progress. Students ranged from loving to hating this process, and their log-writing frequency did not correlate with any other reported changes.

6.3.3.6. Program accountability

In an effort to build a state-wide performance measurement, reporting and improvement system to provide for program accountability, the National Institute for Literacy[159] (NIL) in the U.S. examined various systems. It learned that some impacts of state literacy accountability systems were in vogue and others were no longer of interest. For instance, acceptable elements included program collaboration and resource coordination, measuring results or impacts, matching services to client's needs, continuous improvement, agreement on terms, providing accountability, centralized databases, compatible, state-of-the-art technologies, programs linked to state and national goals, one-stop concept, multiple access points, integrated service delivery, and a focus on commonalties. No longer acceptable elements included categorical, fragmented programs; measuring inputs; matching people to slots; repeating without rethinking;

[159] *Literacy Works – Building State Performance Measurement, Reporting, And Improvement Systems.* (National Institute for Literacy, 1995).

special terms for each program; reporting expenditures; separate, uncoordinated files; incompatible, outdated technologies; programs satisfy individual funding criteria; multiple sources of information; lack of coordination among service providers; and focus on differences. The NIL set out the following *10 Steps to Establish a State Literacy Accountability System:*

Step 1 Define Vision and Benchmarks
Step 2 Define Policy Outcomes
Step 3 Identify Performance Measures for Policy Outcomes
Step 4 Define Program Outcomes Related to Policy Outcomes
Step 5 Identify Program Performance Measures
Step 6 Identify Target Populations Related to Policy and Program Outcomes
Step 7 Compare Existing Service Delivery Patterns With Needs
Step 8 Collect Data and Communicate Results to Various Literacy Stakeholders
Step 9 Use Information to Improve Program Interventions
Step 10 Use Information to Adjust Resources and Policies

NIL concluded that a performance management, reporting, and improvement system is a powerful tool to change paradigms, change systems, revise policies and transform processes-- all with the goal of wise investment of public funds to change lives for the better. Lessons learned in the development of program accountability systems included the following:

- To achieve national and state goals, it is essential to craft a vision of where you want to go, and the goals to get you there. A state-wide literacy system can be a catalyst to bring diverse stakeholders together and enable them to craft a common strategic vision. A happy by-product of the process is buy-in from the contributing stakeholders.

- Translating this vision into program change requires broad-based commitment at many levels. Moving from the vision of a better life for all to the nuts and bolts of how to do it is time consuming and challenging. Shifting the focus from inputs to outcomes doesn't happen overnight. Stakeholders at every level need to learn how to think differently about what they do.
- An effective state-wide literacy system must be customer-focused, results-oriented, and quality-driven. State agencies seeking to build effective state-wide literacy systems should begin with a focus on the customer-- the adult learner-- and use their goals and their strengths to help define the desired outcomes more accurately. A client-centred focus

should also enable agencies to collect and share information and resources across traditional boundaries.

- Full results would only be possible if other state level human resource and economic development initiatives are networked with the literacy system. Literacy systems do not exist in a vacuum, but are one piece of a puzzle to help states address multiple systems and overlapping needs. An individual who seeks to develop stronger literacy skills is likely to be unemployed or underemployed and in poverty. When we realize that these multiple systems are all serving the same client, it is clear that these systems must be networked together.

6.3.3.7. Program effectiveness

In attempting to promote program effectiveness, the Ontario Literacy Coalition (OLC)[160] found that there are few empirical studies demonstrating the impacts of programs or reliable predictors of program success. The lack of comparability of results of programs makes it difficult for practitioners or researchers to confidently identify characteristics associated with effective practice. There has been relatively little systematic outcome-based evaluation of programs, and process-based evaluation is often emphasized over outcome-based on beliefs that:

1. learner outcomes are often more influenced by factors beyond the control of the program,
2. standardized measures of student learning are too narrow a gauge of what students know and fail to measure the things we care about most (e.g. aspects of problem-solving, the ability to synthesize and interpret different kinds of information, creativity), and
3. instructors will start to 'teach to the test' instead of teaching to meet the needs of the students.

Apparently, there has been more outcome-based evaluation of workplace literacy programs because employers insist on seeing the results of their investment in training. Only a minority of literacy programs consistently measure learners' levels at the beginning and end of the program because many providers do not want to divert scarce dollars away from provision to evaluation;

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[160] *The Effectiveness Of Adult Literacy Education: A Review Of Issues And Outcomes-Based Evaluation Of Literacy Programs.* (Ziegler, 1996).

practitioners are concerned that learners will be put off by experiences that remind them of failure and testing; and few literacy providers are experienced with evaluation methodology. The consequences of not knowing include:

1. teachers and tutors need empirical information about what works best, in order to help them make decisions about the approaches to use;
2. advocates need outcome data to persuade others of the value of literacy programs;
3. students need objective information on outcomes to decide whether time invested in a particular program has been well spent;
4. policy makers need macro-information for analysis and planning.

In a study of variables linked to program effectiveness, OLC found the following.[161] The strongest predictors of student retention and attendance are the presence of support services (such as counselling), instruction during the day, and the type of learning environment (such as participation in a learning lab or independent study in addition to classroom learning). Learning time findings were that age is not a barrier to acquiring literacy. Adults are as adept at acquiring literacy as children but it takes longer; they may, however, acquire fluency more slowly than children. Increasing hours of instruction is not sufficient to assure increased skill development. This is further complicated by the need for practice after skills are acquired. Program structure and design findings were that program goals are easier to define for more targeted, 'contextualized' programs, such as family literacy or workplace programs. The practicality of such programs is also appealing to funders. Literacy skills are not easily transferred between workplace literacy programs, for example, and general literacy programs. This fact has led an increasing number of funding agencies and providers to develop targeted programs. Targeted programs are motivating because of a direct relevance to the learner's situation (e.g. promise of a job, a promotion or some other recognition). The amount of time needed for skill improvement may be decreased by half when targeted programs use materials learners use in everyday work. Family literacy programs, using children's books, etc. appear to have great potential for both adult and child literacy. There are high motivation and natural opportunities to practice skills acquired. The need for more evaluation research on family literacy is noted. Other factors include:

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[161] The major source for this information is the U.S. National Evaluation of Adult Education Programs.

- instructors: full-time staff made a difference for ABE learners; teaching experience/certification in adult education was either unrelated to achievements or negatively related.
- support services: made a positive difference in retention.
- program structure: individualized programming and the combination of classroom plus lab work was helpful.
- program costs: higher costs were associated with higher gains in 2 of the 3 situations.
- clients: pre-test scores, reflecting prior achievement/ability were highly predictive of learning gains for all groups – "consistently and substantially".

As a result of its study, OLC reached the following generalizations and lessons learned. Literacy instruction does promote literacy acquisition, but the number of learners who are unsuccessful for whatever reasons, including absenteeism, is high. A substantial investment of time is necessary for a learner to significantly increase his/her literacy skills. The best way to maximize learning time is to extend it, through out-of-class practice. Learning is most likely to occur if the instruction is keyed to materials and situations which the client daily encounters and needs to master. The most effective instructional methods and learning environments are likely different for different kinds of learners. Offering allied services, such as counselling, which clients use, will likely help maintain their attendance. Unanswered questions included the following:

- What kind of training should instructors/tutors have?
- Under what circumstances does class/group size matter to outcomes?
- Are there best instructional methods for different groups of learners?
- Should significant effort be put into increased outreach given that fact that there are many potential clients for adult literacy classes? Or, would there be more of an impact by putting limited resources into maximizing the effectiveness of instruction for those clients who find their way to literacy instruction?
- How can general literacy programs be made to fit clients' daily lives such that their application increases both motivation and practice? Or, should more contextualized programs be offered?
- Given that it is apparently impossible to accomplish more in less time in these contextualized programs, does it merit making some targeted decisions about where to put resources? Or, would doing so tend to deprive potential learners of access to general literacy programs that might come closer to meeting their general life goals?

For the OLC, Ziegler concluded that both the literature and simple logic suggest that isolated program evaluation (each program doing its own thing – or nothing) is not the way to arrive at answers to questions that all literacy providers have. In Ontario, work is underway on a diagnostic intake instrument which all service providers could use to help place learners. There also must be uniform instruments to measure learner outcomes and there is currently discussion of a portfolio of learner work, to be judged by trained assessors. *The biggest question that can be asked about adult literacy programs at the local, provincial, or national level is: are these programs succeeding in lowering the number of adults who have insufficient literacy skills? Ultimately, the goal of adult literacy and basic education must be to self-destruct; to become redundant.* Ziegler says:

> *There are an extraordinary number of goals and achievements of adult literacy programs…But if they do not also improve reading and writing skills, they fail to meet their essential mandate. If improved self-concept or networking or attendance or job qualification were the only or the principal goal of a program, it is not inevitable or even clear that literacy instruction would be the most efficient means. An interesting case in point is work with prison populations…, which strongly suggests that very important cognitive development goals can be met without literacy instruction (and presumably without literacy increases, though they were not measured), in a low literate population.*

Therefore, the two obvious central questions are: what are the best ways to help adults become more literate and what is the evidence?

6.4. Summary

While the previous sections have worked from the macro to the micro – from the big policy picture to the explicit practices – this section is set out in the reverse order, in the belief that the implementation of micro-level interventions combines to have an impact on the macro-level policy interventions. The major focus of this study is the lessons learned from the formal evaluation of adult literacy policies, programs and strategies. Although a very large number of interventions have been undertaken, many have not been formally evaluated. This section sets out examples of what has been learned from specific evaluations in all the policy context areas: literacy for citizenship, work and learning. Lessons are set out according to intervention type: research and policy analysis, programs, and practices.

In the context of literacy for citizenship and personal empowerment, lessons have been learned from policy implementation, from programs, and from practices and strategies.

- Stated and unstated policies have been implemented in support of adult literacy in various contexts. Lessons can be drawn from (1) Canada's national literacy policies, as represented by the mandate and outcomes of the National Literacy Secretariat, (2) international funding policies, and (3) policies directed at special populations (e.g. the poor, the unemployed, and the disenfranchised). For the most part, national policy implementation in Canada has been reflected in the activities and outcomes of HRDC, and especially the National Literacy Secretariat. The 1995 evaluation concluded that NLS is now in a position to play a more active role in shaping the adult literacy agenda and become pro-active in identifying new areas of priority. NLS had been exemplary in its use of partnerships to develop literacy infrastructure in Canada. Lessons learned from NLS policies and programs indicate the need for:
    - more work on preventing duplication and a good database of past projects;
    - more work on distribution of materials;
    - more involvement with projects when they are under way to ensure quality;
    - more regional and national meetings so that information could be shared; and
    - more of a 'superagency' role, operating across departments to improve coordination, consultation and assistance.

  Internationally, the World Bank and others have viewed literacy as pivotal to the success of projects aimed at improving the social and economic circumstances for people in all countries – developed and developing. General lessons have been drawn from international experience to increase the effectiveness of investments in adult education. [162]

  1. Literacy instruction is often more successful when it is combined with teaching practical skills.
  2. Developing functional literacy often involves teaching basic scientific knowledge and sometimes a knowledge of a language other than the mother tongue.
  3. While NGOs are often effective literacy providers, they usually require strengthening to become executing agencies for literacy projects.
  4. Documenting effective practices requires systematic development of research and other kinds of technical capacity to serve the community of literacy providers.

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[162] *Investing In Adult Literacy: Lessons And Implications.* (Eisemore, Marble, and Crawford, 1998).

5. The impact of literacy programs can be improved with better targeting, especially to youths who have not completed their formal education studies.

- In the context of literacy for empowerment and positive participation in society, various interventions that have been evaluated include programs for offenders, social assistance recipients, First Nations, families, and seniors. As well, various evaluated strategies and practices aimed at improving literacy skills and personal empowerment for participation in society have included public awareness information campaigns and initiatives to involve learners. Lessons have been learned from the evaluation of some policies, programs and strategies; however, there is still a mismatch between the large numbers of adults with low literacy skill levels and the small percentage that actually go to literacy programs.

With regard to literacy for work and participation in the economy, various policies, programs and practices have been evaluated and lessons learned.

- The evidence of either formal or informal policies – stated or unstated policies – is in the implementation. The attempts to address and understand the implications of workplace and workforce literacy often take the form of unstated policies, in addition to actual programs or strategies. The following are examples of lessons learned from the examination of individual and collective attitudes toward literacy programs in and for the workplace. In 1992 and 1997, the Conference Board of Canada studied basic skills in the employment context, and concluded that what Canadians could do to address the workplace literacy problem was raise awareness of the importance and value of improving literacy in the workplace; establish more literacy training programs; enhance the literacy component of existing jobs and create more literacy-rich jobs; and develop additional public policies to strengthen literacy skills. In the U.S., findings of a major study suggested substantial productivity payoffs to workplace literacy programs. Market failures in industry -- such as inaccessible capital, lack of information, or uncertainty about costs or payoffs -- dampen more wide scale adoption of programs.

- Various workplace and workforce literacy programs have been evaluated, programs that differ in many ways but which have the same intent – to increase literacy skills of workers to enhance employability for the present and the future. This report gives examples from workplace training in the U.S., workplace basic skills in Alberta, labour-sponsored programs

in Ontario, literacy in the hospitality industry in B.C., basic skills for the construction industry in B.C. and literacy instruction in the U.S. army.

- In addition to policies and programs, various practices or strategies have been aimed at upgrading workforce literacy skills. One strategy, for example, has been to develop local centres around Newfoundland, where unemployment was extremely high and skill levels atypically low. Other practices from which lessons can be learned are techniques for workplace literacy needs assessment, and customizing instruction to a particular workplace.

Finally, in the context of literacy for lifelong learning, lessons have been learned from the interventions aimed at teaching and learning of literacy skills.

- In terms of policy, designing and offering programs presents one kind of challenge, recruiting and retaining students appears to be another. The causes are varied, but loosely related to acquired attitudes toward learning, motivation, work/family responsibilities, and elements of the program delivery (e.g. materials and learner involvement). A Quebec report recommends that (1) learners be grouped according to age, with similar life experience and learning goals; (2) better follow-up of each learner; (3) open classes and flexibility, adapting to learner schedules outside literacy training; and (4) review of learner objectives and motivations after establishing a trust relationship.

- Lessons can be learned from at least three different types of delivery/programs that have been evaluated: a library-based program, volunteer tutoring programs, and adult basic education. For example, a study on the second type of program recommends that tutors realize they are accountable to the organization which needs to provide on-going training, be provided with extra training as they take on new responsibilities, and forge closer links with specialists who can serve as consultants. In general, volunteer programs need to be able to examine the functions and outcomes of their activities, and more research is necessary to understand how tutors in the volunteer sector believe and behave, given the economic importance of volunteer work in Canada, and the fact that the volunteer sector is a significant provider of adult literacy. With regard to ABE programs that have been evaluated, several different sets of lessons learned are documented in this report. Adult literacy programs are not entitlements, nor are they social support systems, nor are they the leading edge of a national lifelong learning program. They are funded to provide the basic educational skills required for successful integration into modern society. To achieve this

mission, they need to be structured in a manner conducive to adult learning. Support services are also required to alleviate a variety of barriers to full participation by the target population, such as transportation and childcare assistance, job counselling, and vision and hearing screening. Programs must also be educationally sound if they are to succeed.

- Lessons learned have been learned from specific strategies aimed at teaching and learning literacy in the context of lifelong learning, in particular from (1) the evaluation of the effectiveness of particular software programs, (2) using various learning technologies, (3) using the Internet, (4) approaches for special needs students, (5) teaching strategies, (6) program accountability, and (7) program effectiveness. In an effort to build a state-wide performance measurement, reporting and improvement system to provide for program accountability, the National Institute for Literacy (NIL) in the U.S. examined various systems. It learned that some impacts of state literacy accountability systems were in vogue and others were no longer of interest. For instance, acceptable elements included program collaboration and resource coordination, measuring results or impacts, matching services to client's needs, continuous improvement, agreement on terms, providing accountability, centralized databases, compatible, state-of-the-art technologies, programs linked to state and national goals, one-stop concept, multiple access points, integrated service delivery, and a focus on commonalties. The NIL set out *10 Steps to Establish a State Literacy Accountability System* and concluded that a performance management, reporting, and improvement system is a powerful tool to change paradigms, change systems, revise policies and transform processes -- all with the goal of wise investment of public funds to change lives for the better. Lessons learned in the development of program accountability systems included the following: the importance of a strategic vision, translating the vision into an outcomes-based program, developing a program that is customer-focused, results-oriented, and quality-driven; and achieving results with networked systems of human resources development and economic development. In attempting to promote program effectiveness, the Ontario Literacy Coalition found that there are few empirical studies demonstrating the impacts of programs or reliable predictors of program success. The lack of comparability of results of programs makes it difficult for practitioners or researchers to confidently identify characteristics associated with effective practice. As a result of it's study, OLC reached the following generalizations and lessons learned: (1) literacy instruction does promote literacy acquisition, but the number of learners who are unsuccessful for whatever reasons, including absenteeism, is high; (2) a substantial investment of time is necessary for

a learner to significantly increase his/her literacy skills; (3) the best way to maximize learning time is to extend it, through out-of-class practice; (4) learning is most likely to occur if the instruction is keyed to materials and situations which the client daily encounters and needs to master; (5) the most effective instructional methods and learning environments are likely different for different kinds of learners. For the OLC, Ziegler has concluded that both the literature and simple logic suggest that isolated program evaluation (each program doing its own thing – or nothing) is not the way to arrive at answers to questions that all literacy providers have. The biggest question that can be asked about adult literacy programs at the local, provincial, or national level is: are these programs succeeding in lowering the number of adults who have insufficient literacy skills? Ultimately, the goal of adult literacy and basic education must be to self-destruct; to become redundant.

The lessons learned from specific evaluations of policies, programs and practices are synthesized in the following section into lessons learned about stakeholders, programs and policy interventions specific to adult literacy.

7. SYNTHESIS OF LESSONS LEARNED

This final section of the technical report synthesizes the lessons learned from research into various interventions, with evidence from the evaluation of adult literacy policies, programs and practice. A secondary analysis of evaluation research and context documents in the field of adult literacy across Canada and within other industrialized countries reveals "wisdom" that can be used for (1) the development and analysis of policy, (2) planning and implementation of programs, and (3) designing and evaluating practice. Lessons have been learned, for example, about the nature of the policy problem and the different stakeholder groups; the learners and the characteristics of adults with low literacy levels; and good practice for some types of programs and strategies.

7.1. Lessons About The Stakeholders

For purposes of this study, there are two major stakeholder groups: (1) those individuals who have low literacy skill levels, and (2) those who don't. Those who don't comprise various sub-groups -- governments and policy makers, institutions that design and deliver programs, employers and industries, literacy teachers/instructors, and the public. Analysis of reports have provided some lessons learned about all the various stakeholder groups.

7.1.1. Lessons about low-literate adults

The primary stakeholders in this issue are the adults with low literacy skill levels. Many studies, principle among them the 1994 International Adult Literacy Survey, reveal that a significant number of adults in Canada and in other developed countries do not have the levels of literacy skills commensurate with contemporary literacy demands in an industrialized economy. That is not really news, i.e., using different definitions and measures over time, the results of adult literacy studies have all indicated a sizeable problem. Among the key findings from this study is the fact that numbers of adults with literacy problems have not been reduced despite numerous interventions.

Many of those adults who have low levels of literacy skill do not consider that they have a problem (IALS, 1995). This is clearly reflected in participation rates in literacy programs, and this has sweeping implications for policy implementation.

While many do not acknowledge a problem, studies conclude that there are problems for individuals that are associated with low literacy skill levels. People with literacy problems have two-thirds the income of other Canadians, are twice as likely to be unemployed, and much more likely to receive some form of social assistance (Smith, 1997).

Most adults who have low levels of literacy skill do not participate in adult literacy skill upgrading programs. Estimates of participation rates for targeted populations range between 6% and 10% of those who could or should be in literacy programs.

There may be four categories of reasons for the low participation rates. The first set of reasons for low participation rates are barriers to access and accommodation combined with the associated problems of unemployment, poverty and disenfranchisement (NIL, 1995; NLS, 1995; Smith, 1997):

- lack of appropriate, accessible education and training programs;
- lack of financial resources;
- lack of support systems including child care and transportation;
- unsuitable living conditions including poor health and nutrition, and inadequate housing;
- personal circumstances and attributes including stress and low-self esteem;
- issues of violence, abuse and addictions;
- need for eyeglasses or hearing aides;
- discrimination based on race, class, gender and ability levels.

A second set of reasons is related to the teaching programs themselves, e.g., instructional approaches, setting, testing procedures, materials used, imposed timeframes. A third reason is, as stated earlier, a lack of awareness or agreement that low literacy skill levels are either "a problem" or "the problem" for a large number of individuals. Yet another reason is the nature of programs intended to assist those in need of remediation, i.e., problems created by strict funding guidelines and/or time limitations. Adults with low literacy skill levels who have dealt with past school failure do not usually see further education as a solution to their problems. Some barriers have been partially addressed -- public education and advocacy efforts of NLS and its partners have reduced the low self-esteem of learners, lack of past success in school and lack of awareness (NLS, 1995).

Of those who are involved in literacy skill upgrading programs, there is an increased likelihood of learning disabilities and other reading-related problems (NCES, 1993); unemployment and reliance on government assistance (Smith, 1997); and low self-esteem and associated social problems (Fowler and Scarborough, 1993). Evidence suggests a cohort of literacy-disadvantaged persons who have common characteristics -- low literacy skill levels, low income, low social status and learning-challenged. There are, in addition, other cohorts within Canadian society that have a propensity for low-level literacy skills among adults: First Nations, offenders, and the poor. In either case, targeting existing cohorts or creating a "new" cohort, makes it possible to target those most in need. The practical reality is that a large number of adults seeking literacy instruction today present limited reading skills which reflect a more generalized learning problem and/or the motivational and educational disadvantages of a history of failure and a lower socio-economic status. It is impossible to disentangle the multiple problems contributing to and stemming from the reading difficulty. Regardless, most adult poor readers are likely to have a great deal in common with regard to their overall literacy levels, their profiles of component reading skills, their difficulties with phoneme awareness and other associated cognitive-linguistic weaknesses, their educational and vocational histories, their social-emotional difficulties, their expressed needs and, potentially, their responsiveness to literacy assistance/training in adulthood (Fowler and Scarborough, 1993).

Of those who recognize their own literacy problem, most are not in a position to advocate on their own behalf – they do not have the resources or the sense of personal empowerment to engage "the system" in solving their literacy problems. Various advocacy groups work on their behalf – NGOs that are concerned with poverty, unemployment, public health, crime, and social disadvantage in Canadian society. A very small number of actual learners, with assistance from government and NGOs, have begun to advocate for themselves. Student participation in decision-making is a must. The majority of students in literacy programs demonstrate a strong commitment to learning, a keen understanding of the issues that affect their lives, and a willingness to become involved in making positive choices for themselves and their families (Smith, 1997).

When adults do engage in adult literacy teaching/learning programs, most acquire an increased level of literacy skills. From participation in adult literacy remediation programs, there are both (1) anticipated and unanticipated impacts, (2) long-term positive and short-term negative impacts for individuals, their families and communities.

- Some positive impacts include improved self-confidence, better parenting, employment opportunities, and community leadership for some (Smith, 1997); however, the nature of these impacts is not well-known or documented. From family literacy programs, learners most often mentioned that they had experienced improvements in basic skills, self-esteem, problem-solving, involvement in community affairs, parenting skills, family relationships, and their children's willingness to learn (NIL, 1995). Also as an outcome of family literacy programs, for individuals, attitudes about education improve; the value they perceive in education increases; reading achievement increases; writing ability improves; and math and science knowledge increases; knowledge about parenting options and child development increases; parents are able to enhance their employment status or job satisfaction (Padak and Rasinski, 1997). From workplace literacy programs, "graduates" were clearly more assertive, confident and articulate; their work habits and abilities had improved considerably, and they were generally more willing to initiate positive interactions with co-workers and customers (Almaprese and Kay, 1993).

- Anticipated impacts include, but are not limited to, retention of increased basic skill levels, utilization of skills acquired, greater self-confidence, enhanced inter-personal and inter-company communications, positive attitude towards continuing education, lessened apprehension about learning new skills, increased job performance, increased motivation, and increased interest in an industry (Barker, 1991).

- Unanticipated but achieved impacts include, but are not limited to, changed attitudes toward education in general, increased levels of self-esteem, increased ability to cope with change, acquired confidence in self-directed learning, and acquired confidence in others (Barker, 1991).

- Short-term negative impacts have to do with changing the power in established relationships. In some families and employment situations, the balance of power is "disrupted" as a learner moves from a position of total dependence to one of self-reliance through the new-found ability to make informed choices (Barker, 1991).

A significant number of individuals who begin literacy remediation programs do not complete their program of study. The drop-out rate in adult literacy programs is very high, ranging from, e.g., 25% in Quebec (Boivin, 1993) to 60% in Vermont (Dickinson, 1996). Among the reasons

given for "dropping out" of literacy programs are acquired negative attitudes toward learning, lack of motivation, work/family responsibilities, and elements of the program delivery -- inappropriate materials and/or lack of learner involvement.

Some types of programs have more appeal to and/or success with adults who have literacy problems.

- Parents are far more likely to persist in family literacy programs than in other types of adult literacy programs (Padak and Rasinski, 1997).
- Employees are more likely to participate in programs if training occurs during normal working hours (Conference Board of Canada, 1992).

These are some of the obvious lessons learned, from the accumulated literature, about the individuals themselves who are the target of interventions – policies, program, and practices aimed to reduce problems associated with low literacy skill levels.

7.1.2 Lessons about the other stakeholders

The secondary stakeholders in this issue are those who can be expected to be doing something about the problems associated with low literacy skill levels: governments as funders and policy makers, institutions that design and deliver programs, employers and industries, literacy teachers/instructors, and the public.

With regard to "the public," evidence from the ABC public education campaign – e.g., through magazine ads and the Peter Gzowski golf tournaments -- reveals that the public is increasingly aware of the importance of literacy and supportive of "adult illiteracy" as a charitable cause. While there is no evidence of substantial growth in the size or number of programs using volunteers, individuals do continue to come forward to volunteer as tutors and literacy advocates. However, the support appears to end there, with no great outpouring of support for other policy alternatives (e.g. increased spending on adult education).

In the absence of a concerted public outcry, governments and policy makers are most likely to allocate resources to research and public awareness on the issue. Few resources are allocated to long-term programming or to altering the public education system to accommodate adult

literacy in a serious way. An independent evaluation found that the NLS's support played an important role in stimulating research and advocacy work done in adult literacy (HRDC, 1995).

For all of the stakeholder groups, there are anticipated and unanticipated outcomes, and largely positive impacts that may be long-term or short-term. For example, through family literacy programs families learn to value education. They become more involved in schools, and this leads to better achievement for children. Families become emotionally closer, read more and engage in more literate behaviours at home. Society benefits as literacy achievement can in turn break cycles of economic disadvantage. In particular, family literacy programs positively affect several major social problems: nutrition and health problems, low school achievement and high school drop out rates, teen parenting, joblessness and welfare dependency, and social alienation (Padak and Rasinski, 1997). From workplace literacy programs, for employers and industries, impacts include but are not limited to a system for continuous upgrading of the workforce, development of appropriate curriculum approaches, improved communications with employees, increased awareness of the importance of basic skills to job performance, awareness of skill deficits of employees, a ripple effect of graduates promoting upgrading, awareness of public and commercial education services, increased efforts at plain language in written/verbal communications, sensitization to needs and worries of employees, and successful partnerships with educational institutions and government (Barker, 1991). For educational institutions, impacts of workplace literacy programs include the development of appropriate workplace basic skills curriculum, an enhanced reputation for innovation and flexibility, cultivation of new partnerships and new funding, a pool of instructors trained for customized workplace programs, and enticement of more workers to register in other courses (Barker, 1991).

7.2. Lessons About Programs

To address the problems associated with the mismatch between adult literacy skill levels and literacy demands, many different kinds of programs have been implemented, (1) for the purposes of prevention or remediation, (2) using a variety of teaching and organizational approaches, (3) often targeting specific populations, and (4) with varying degrees of success. Sub-elements of these programs include: the actual teaching strategies; the characteristics and competencies of the teachers themselves; the materials used; special needs of particular learner groups; and learner involvement.

7.2.1. Programs in general

From studies about the provision of literacy teaching/learning programs, a number of lessons can be learned. First, the variety of programs is virtually unlimited with various permutations and combinations of paid and volunteer staff, formal and non-formal design, individual and group instruction, flexible and rigorous learning management. In short, there is no "one way" to deliver literacy instruction, with different approaches favoured for different target populations.

Second, there are a considerable number of problems with provision such as unstable funding linked with untrained personnel and limited accountability. Suggestions most commonly made by program staff and researchers for improving programs include the need to increase program funding, hire more staff, expand learner participation in guiding the program, arrange for good child care, strengthen components for enhancing the children's personal educational development, and improve the assessment and documentation of learners' progress (NIL, 1995). Suggestions made by funders and sponsors include a pressing need to demonstrate accountability through evaluation (HRDC, 1995). Not all adult literacy needs are being met -- less than 10% in the U.S. -- and access to programs is a function of where one lives or works. Despite growth in adult literacy services, the literacy education process operates at the margin and the system of services has become increasingly fragmented (NCAL, 1993).

Third, there are some common elements that comprise good practice in adult literacy programs. Studies conclude that programs should incorporate a non-threatening environment, flexibility for accommodating different skill levels and personal goals, support services, and linkages to other service providers. Instruction should be focused on the interests of the learners, be participatory, emphasize life skills and contextual skills, and involve cooperative learning to build a sense of community within the classroom. Both traditional and non-traditional learning strategies should be used. In classroom-based programs, learners should be grouped according to age, and similar life experience and learning goals; follow-up of each learner should be regularized; classes should be open and flexible, adapting to learner schedules outside literacy training; learner objectives and motivations should be reviewed after establishing a trust relationship (Boivin, 1993).

Fourth, not all programs or practices are successful. One study concluded that no examples of learning breakthroughs were found in the three individual case studies. All the learners struggled to advance in basic skills, particularly in writing. The teachers were confronted with a wider range of abilities in their classrooms than they could handle effectively and had little, if any diagnostic information to guide their individual instruction (Venezky, Sabatini, Brooks and Carino, 1996). Allowing each student to set his or her own instructional goals is a democratic approach to adult education, but it is not an effective way to use limited instructional resources. More restricted program designs, with fixed sets of skills offered at specified times, might be a more effective approach for adult basic skill education (Venezky, Sabatini, Brooks and Carino, 1996).

Fifth, literacy instruction does promote literacy acquisition, but the number of learners who are unsuccessful for whatever reasons, including absenteeism, is high. A substantial investment of time is necessary for a learner to significantly increase his or her literacy skills. The best way to maximize learning time is to extend it, through out-of-class practice. Learning is most likely to occur if the instruction is keyed to materials and situations which the client daily encounters and needs to master. The most effective instructional methods and learning environments are likely different for different kinds of learners (Ziegler, 1996).

From the various studies, overarching lessons appear to be the following:

- Every effort should be made to ensure adequate funding is secured before the start of a new program (Marshal and Selman, 1992).
- Programs that offer more than just reading and writing instruction appear to be more successful. Issues of access, child care, transportation, community and cultural orientation, personal meaningfulness are also considered. (De Bruin Parecki, Paris and Seidenberg, 1996). Literacy instruction is often more successful when it is combined with teaching practical skills (Eisemore, Marble and Crawford, 1998).
- While NGOs are often effective literacy providers, they usually require strengthening to become executing agencies for projects (Eisemore, Marble and Crawford, 1998).
- The strongest predictors of student retention and attendance are the presence of support services such as counselling, instruction during the day, and the type of learning environment such as a learning lab or independent study in addition to classroom learning (Ziegler, 1996).

- Age is not a barrier to acquiring literacy. Adults are as adept at acquiring literacy as children but it takes longer; they may acquire fluency more slowly than children (Ziegler, 1996).
- Increasing hours of instruction is not sufficient to assure increased skill development. This is further complicated by the need for practice after skills are acquired (Ziegler, 1996).
- Program goals are easier to define for more targeted, 'contextualized' programs, such as family literacy or workplace programs. The practicality of such programs is also appealing to funders (Ziegler, 1996).

7.2.2. Lessons about program elements

With regard to the actual teaching of reading to adults, a number of lessons have been learned related to methodology, locale, and approaches for special populations. In aid of formal program evaluation in the future, it would be quite possible to set out the principles of good practice in teaching literacy skills to adults including the preparation of teachers, materials used, and learner involvement.

In addition, lessons have been learned about the preparation, attributes and needs of workers – teachers, instructors, volunteer tutors – in literacy programs.

- It is now recognized that corrections-specific training is generally not provided to teachers. They are usually forced to seek professional development in the outside teaching community and are disadvantaged in dealing with prison-specific problems (NCAL, 1993).
- With regard to learning technologies, levels of staff expertise are inadequate; with a notable lack of training, information about computer technology, or effective uses of technology. Studies indicate a major need for staff development – high quality, multi-content, hands-on, and on-going (NCAL, 1993).
- In terms of training, volunteer tutors need initial and on-going training, extra training as they take on new responsibilities, and links with specialists who can serve as consultants. Tutors should also learn about the adult education sector and about the variety of ways of offering adult literacy instruction; and they should recognize that their efforts have an impact on the learner's life and future aspirations. This should foster accountability to the organization and a desire to seek help for the learner and on-going training for themselves (Hambly, 1998).

In consideration of the learner, literacy teachers should accommodate various learning styles, conduct progress checks, acknowledge student achievement, foster the development of independent learning strategies, and acknowledge the learner's prior knowledge and experience. (Marshal and Selman, 1992).

Teaching materials should reinforce all aspects of learners' experiences -- home, work, community. Culturally relevant teaching and support materials should be used, and instructors should assess materials for cultural bias (Marshal and Selman, 1992). Context-specific reading materials – e.g., workplace reading tasks in workforce training – are the most successful (Phillipi, 1987).

While there are a large variety of explicit approaches to teaching reading, one study concluded that learners and instructors preferred the "meaning model" of reading; the phonics model was the second most popular, and the whole word model was the least (NIL, 1993).

7.2.3. Lessons about program evaluation

In this attempt to gather evaluation studies, it became clear that (1) most programs, policies and practices have not been formally evaluated and (2) evaluation reports seldom outline the problems or negative outcomes. Among the many reasons for this is absence of recognized quality standards for literacy programming in general; for example, employers, employees, educational institutions and various levels of government have yet to agree on the measures of success of quality workplace literacy training (Barker, 1991). There is literally nothing against which to evaluate the excellence of literacy programming. On the one hand, there are many, many lists of good practices, largely from the provider's perspective that could serve as a good beginning. However, on the other hand, the lack of comparability of results of programs makes it difficult for practitioners or researchers to confidently identify characteristics associated with effective practice (Ziegler, 1996).

As well, while there is no "one way" to evaluate programs, studies reveal some basic principles for good program evaluation. A program evaluation should focus on measuring results or impacts, matching services to clients' needs, continuous improvement, providing accountability and coordination, centralized databases, compatible technologies, programs linked to state and national goals, a one-stop concept, multiple access points, integrated service delivery, and a

focus on commonalties (NIL, 1995). A program evaluation should not focus on fragmented programs, measuring inputs, matching people to slots, repeating without rethinking, special terms for each program, reporting expenditures, uncoordinated files, outdated technologies, programs satisfying individual funding criteria, biased sources of information, or a lack of coordination among service providers (NIL, 1995).

7.2.4. Lessons about learning technologies

While there is still resistance and questioning about the effectiveness of using technology among some providers, the overall level of interest in using technology is high. Issues of access are a problem: inadequate amounts of technology available means that most students who do have access have a limited amount of time to use the technology and that many students have no access whatsoever, and few students have access to anything approaching the latest technology. There is a lack of financial resources: while many programs are reasonably able to address their administrative needs, most do not have the funds to purchase the hardware and software needed to provide their students with adequate computer access. On-line technologies are not being used by the majority, yet (NCAL, 1993). There is evidence of higher productivity and more positive attitudes to learning from students who are using technology. There is evidence of increased output and greater understanding of what producing written text involves, increased participation by learners and higher levels of enthusiasm and interest (Victoria University of Technology, 1998).

The advantages of using any computer software with adult students are that students acquire basic computer skills; computers give students the privacy they may desire; computers are prestigious for the programs and they attract more students; and computers provide fast feedback for each student. Six other advantage claims -- dramatic achievement gains, improved attitudes, increased self-esteem, individual content, control, and flexibility -- are not supported. Overall, no type of software was shown to be particularly more advantageous. Disadvantages of using any educational software with adult students are that (1) the software may be inappropriate for adult students, in that it may be based on an instructional approach which is incompatible with both a learner-centred program and an understanding of reading as a meaning or schema process; and (2) new software may not integrate effectively with the existing software packages or the program's curriculum. Out of eight presumed disadvantages, four of them -- student fear, technological change, technical problems and role changes -- do

not seem to be problems. Four others -- cost, training, inappropriate instruction and integration – are problems (Millar, 1996).

In a broader application, information and communications technologies are valuable for lessening the isolation that many adult literacy providers and students experience, for increasing the communication between staff and students within and between programs, for increasing access to high quality materials and current resources and information, for streamlining administrative and reporting processes, for developing a centralized 'clearinghouse' of information and resources, for maintaining information and tracking funds, for matching learners to support services, and for exploring innovative instructional and staff development approaches (Hopey, Harvey-Morgan, and Rethemeyer, 1996; NCAL, 1993). At this time, it has been learned that adult literacy programs are somewhat behind in the adoption and development of technology resources; and (2) economic considerations remain a major impediment to technology use in adult literacy programs (Elmore, 1997). Technology is not being exploited because much of the software lacks creativity; products are geared towards children instead of adults; few literacy providers have sufficient technology for broad sustained use; staff and volunteers have limited knowledge and training in the use of technology as a teaching tool; and consumer electronics and broadcast technologies are surprisingly underused (NCAL, 1993).

7.2.5. Programs for particular populations

It should go without saying that there are various target populations, each made up of individuals with different characteristics and needs. While there are common elements to most programs, many attempt to place special emphasis on the special circumstances of the learners, and from relevant studies of this, lessons have been learned about programs for special populations: offenders, parents and families, organized labour, the employed workforce, recently unemployed workers, classroom ABE students.

An ideal program in prison literacy educates broadly; is governed for the sake of the learners; makes prison life more liveable; is cost-effective; improves quality of life; has a new-reader's library; makes appropriate use of educational technology; and is the right thing to do. Offenders have a different preferred learning style, preferring a hands-on approach rather than the more passive, visual methods practised in schools. Prison education programs should be more

closely integrated with programs on social skills, substance abuse, anger management and family violence (NCAL, 1993).

Successful family literacy programs may be found on a continuum of 'context sensitivity' from didactic (traditional skills and materials) to responsive (accommodation of special needs of the participants, support of parenting skills and job preparation, literacy development and family independence). Ideally programs should balance both ends of the continuum. Programs that have become elaborated systems and offer more than just reading and writing instruction appear to be more successful. Issues of access, child care, transportation, community and cultural orientation, personal meaningfulness are also considered (De Bruin Parecki, Paris and Seidenberg, l996).

Among the elements of a successful labour-based workplace literacy program are reliance on non-prescriptive indicators, respect for autonomy and diversity, manageability within on-going work constraints, appropriate time-tabling, evaluation tools and processes guided by labour goals, absence of competition from other workplace deliverers, good instructors, committed participants, committed management and effective support for participants and instructors, appropriate learner-instructor ratio, principle of 'equity of outcome,' respect for learners/workers, access for the most in need, a wide variety of learning materials, effective organizational links, excellent initial and follow-up practitioner training, participatory and continuous process of evaluation at all levels -- project, program and, classroom – and celebration of achievements and detailed program documentation (Connon Unda, 1995).

Among the elements that contribute to the success of workplace literacy programs are regularized positions for instructors, learner buy-in, written policies and procedures, individualized assessment and instruction, proper classroom space, counselling services, efficient administration, job descriptions for instructors and a system performance appraisal, knowledge of the staff in the workplace, orientation for instructors, on-going data collection for program evaluation (Marshal and Selman, 1992). Workers need to be involved in all phases of program development, which requires an atmosphere of respect, ownership, flexibility, and an open labour-management relationship that literacy practitioners cannot always affect or influence. All stakeholders -- from workers to top administrators -- need to buy in to the goals and methods, which is especially difficult to affect where different interests are at stake. Key advice to educators is to act as 'consultants' and guide rather than direct; find the right

combination to unlock the particular organization, but don't compromise on what it takes to run a quality program (NIL, 1993). Key factors identified for the success of workplace literacy partnerships (management – labour) are respect and convergence of respective goals and expectations, clear roles and responsibilities, significant contributions of each, true collaboration in activities such as the task analysis, and hosted graduation and paid bonus (Alamprese and Kay, 1993).

A successful literacy program for the recently unemployed would treat potential participants as intelligent adults who are interested in doing something for themselves and their families; be provided by an organization that the former workers trusted to defend their interests; encourage a sense of local ownership (e.g. putting control in the hands of union representatives and community volunteers); make attendance voluntary; start where people are at and tailor instruction to individual needs and interests; collect evaluation data from the outset; provide a friendly and relaxed atmosphere with flexible hours; engage instructors that have the same background and status as the participants; use a variety of techniques to encourage learning; and provide informal support and counselling about personal and family problems (Fish, Food and Allied Workers, 1996). However, an important policy lesson is that upgrading Canada's workforce is likely to be most effective while individuals are employed rather than unemployed (Barker, 1991).

In a successful ABE classroom-based program, a decision that an adult learner is unable to progress should not be made on the basis of attempting instruction through only one model; instructors should engage learners in the examination of their relationship to learning rather than simply see themselves as teaching a set of de-contextualized skills; instructors should see themselves as testing and refining a developing knowledge base; and caution must be exercised when using employment gains as a rationale for program development or as a criterion for evaluation (Hambly, 1998).

With regard to programs for adults with learning disabilities, research results indicate that interest-driven reading is key to development of high literacy levels. Development is augmented by avid reading in a content area of passionate personal interest along with systematic decoding instruction; and reading about a favourite subject enhances depth of background knowledge and enables practice, fostering development of fluency and increasingly sophisticated skills.

Literacy skills are not easily transferred between workplace literacy programs, for example, and general literacy programs. This fact has led an increasing number of funding agencies and providers to develop targeted programs. Targeted programs are motivating because of a direct relevance to the learner's situation (e.g. promise of a job, a promotion or some other recognition). The amount of time needed for skill improvement may be decreased by half when targeted programs use materials learners use in everyday work (Ziegler, 1996). It has been concluded that the impact of literacy programs can be improved with better targeting, especially to youths who have not completed their formal education studies (Eisemore, Marble and Crawford, 1998).

In short, from the lessons learned, it should be possible to develop and implement both models for and actual programs for many target populations.

7.3. Lessons From Policy Interventions

In terms of policy development, implementation or analysis, there are a myriad of lessons learned from studies of adult literacy interventions. They relate to the dual nature of the adult literacy problem, jurisdictional issues in Canada, the changing societal context, the experiences of those working in the field. Lessons have been learned about the nature of the policy problem, and conceptual and jurisdictional policy approaches.

7.3.1. The nature of the policy problem

The elements of the policy problem include measurement and data gathering to describe the problem, barriers to implementation that must be overcome, and factors contributing to successful implementation. The measurement issue has been "solved" through IALS. What remains is to break the problem into manageable parts and deal with them.

Among the barriers to implementation is the gap between research and practice. For example, most employers said that measuring the impact of enhanced literacy skills on the performance of individual employees and on the organization was extremely difficult. Therefore, what Canadians could do to address the workplace literacy problem was raise awareness of the importance and value of improving literacy in the workplace; establish more literacy training programs; enhance the literacy component of existing jobs and create more literacy-rich jobs;

and develop additional public policies to strengthen literacy skills (Bloom, Burrows, LaFleur and Squires, 1997). A different study concluded that basic skill deficiencies in the workplace have to affect corporate interests or they will not be addressed as an issue. As more organizations undergo fundamental changes in terms of the technology applied, work processes, and management systems, there will be increased attention paid to the problem. Organizations which have gone through these processes are focused on creating a sustainable competitive advantage by improving their human resources (Conference Board of Canada, 1992). This research has not motivated more industries to introduce literacy programs in the workplace.

Policy problems reflect negative or challenging changes in society. Policies must be aimed not just at the problems but at the changing nature of the problems. Just as literacy demands increase and change, the societal context or opportunity to work is changing. For example, in the past, people with lower education levels could compete for employment at decent wages and now these jobs are being taken by post secondary graduates who cannot find work in their field (Smith, 1997).

7.3.2. Jurisdictional policy options

From studies related to adult literacy, there are lessons learned about jurisdiction-based policies. First, it has been concluded that there are different roles for different levels of government (HRDC, 1995); however, it is not clear the extent to which different jurisdictions have accepted their logical roles as formal evaluation studies were not located. Second, there is a demonstrated need for continued federal intervention in literacy (HRDC, 1995); National Literacy Secretariat support for research and advocacy and other HRDC initiatives in support of learners through Employment Insurance (Part II) and designated equity-seeking group policies are a necessary complement to the actual provision of programs by the provinces who have jurisdiction for education and training. Third, partnerships and flexibility to foster partnerships are critically important (HRDC, 1995); partnerships between governments, with NGOs, with business and labour, and with education providers have contributed to positive policy outcomes.

7.3.3. Conceptual policy approaches

As mentioned earlier, there are two dimensions to the adult literacy problem: the skill deficits of individuals and literacy demands that are rising and changing. The most obvious and best

funded policy approach has been directed at the former; however, there has been considerable success at reducing literacy demands in various contexts: literacy for citizenship and community participation, literacy in and for the workplace, and literacy for lifelong learning. In all three cases, there is evidence of increasing types and levels of literacy requirements. There is some evidence to suggest that not all literacy requirements are relevant and that increasing demands cannot be slowed or prevented. Through the Plain Language Initiative and through support to agencies wanting to reduce literacy demands, more and more materials are written or rewritten using clear language and consideration of the target audience. Studies indicate that this is a necessary component to policy aimed at addressing adult literacy problems; i.e., that a two-pronged approach is necessary.

With regard to skill deficits of individuals, there are still many unresolved policy issues. For example, in the U.S., a dividing line between education for a pressing social need, which justifies the ABE and ESL programs, and continuing education for adults seeking enrichment, has never been made, in part because it is felt that the U.S. government has yet to take a strong interest in the latter area (Venezky, Sabatini, Brooks and Carino, 1996). Further to that, many of the most needy do not attend adult literacy programs. If they are to be reached, then either significant new funding will be required or priorities will need to be set, not just for whom to admit, but also for how long to retain someone who is not progressing adequately toward completion (Venezky, Sabatini, Brooks and Carino, 1996).

7.3.4. Contributing to the solution

Clearly, macro-level policies are needed to direct broad initiatives; however, studies have revealed lessons about factors that contribute to the success of policy implementation. Some lessons are about information gathering and dissemination. For example, good information dissemination has been judged to be critical (HRDC, 1995) and financial support for the National Adult Literacy Database reflects the recognition of that reality. Documenting effective practices requires systematic development of research and other kinds of technical capacity to serve the community of literacy providers (Eisemore, Marble and Crawford, 1998). A performance management, reporting, and improvement system is a powerful tool to change paradigms, change systems, revise policies and transform processes -- all with the goal of wise investment of public funds to change lives for the better (NIL, 1995).

Other lessons focus on how to achieve effectiveness and efficiency. In the U.S., a lesson learned is that an effective state-wide literacy system must be customer-focused, results-oriented, and quality-driven. State agencies seeking to build effective state-wide literacy systems should begin with a focus on the customer-- the adult learner-- and use their goals and their strengths to help define the desired outcomes more accurately (NIL, 1995). Full results will only be possible if other state level human resource and economic development initiatives are networked with the literacy system. Literacy systems do not exist in a vacuum, but are one piece of a puzzle to help states address multiple systems and overlapping needs. An individual who seeks to develop stronger literacy skills is likely to be unemployed or underemployed and in poverty. *When we realize that these multiple systems are all serving the same client, it is clear that these systems must be networked together* (NIL, 1995).

In Canada, suggestions for the federal government (NLS) include more work on preventing duplication and a good database of past projects; more work on distribution of materials; more involvement with projects when they are underway to ensure quality; exploring the feasibility of establishing a national network for resource material and information; sponsoring more regional and national meetings so that information could be shared; publishing of a newsletter highlighting important issues, summarizing key research findings, etc.; and taking on more of a 'superagency' role, operating across departments to improve coordination, consultation and assistance (HRDC, 1995).

7.4. Conclusion

In conclusion, these "lessons learned" are from a particular perspective, i.e., policy makers and academics for whom the outcomes of this report can inform policy development and analysis. The intention of this report has been to set out what has been learned from research reports and formal evaluation studies of interventions aimed at adult literacy in the context of literacy for citizenship and personal empowerment, work, and lifelong learning.

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